DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA750)

Migration of Contaminated Groundwater Under Control

Fac	cility Name:	OMNOVA Solutions, Inc.
Fac	cility Address:	1001 Chambers Avenue Jeannette, Pennsylvania 15644
Fac	cility EPA ID #:	PAD004338000
1.	groundwater me	e relevant/significant information on known and reasonably suspected releases to the edia, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units [SWMU], is [RU], and Areas of Concern [AOC]), been considered in this EI determination?
		X If yes – check here and continue with #2 below.
		If no – re-evaluate existing data, or
		If data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Migration of Contaminated Groundwater Under Control" EI

A positive "Migration of Contaminated Groundwater Under Control" EI determination ("YE" status code) indicates that the migration of "contaminated" groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original "area of contaminated groundwater" (for all groundwater "contamination" subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Migration of Contaminated Groundwater Under Control" EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

2.	"leve	Sundwater known or reasonably suspected to be "contaminated" above appropriately protective is" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, nce, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?
		If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.
	X	If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."
	·	If unknown - skip to #8 and enter "IN" status code.

Rationale and Reference(s):

OMNOVA Solutions Inc. (OMNOVA or facility) is located on approximately 28 acres of land in the town of Jeannette, Westmoreland County, Pennsylvania in a valley floor bordered along the north by Chamber Avenue, along the east by Lewis Avenue, and along the south by Division Street. The facility has over a hundred years of industrial history that began with the manufacture of rubber products in 1901. The original manufacturing facility, known as the Pennsylvania Rubber Company, manufactured bicycle and automotive tires, inner tubes, and other rubber products. The facility was owned by the Pennsylvania Rubber Company in 1945. In 1945, the Chemical Plastics Division of General Tire and Rubber Company purchased the facility, which manufactured tires, tennis balls, gas masks, inflatable pontoons and rafts. Between 1976 and 1978, the facility ceased the manufacture of rubber products and began the manufacture of polyvinyl chloride (PVC) film. In 1980, the facility's operations consisted of calendaring, printing, embossing, laminating rigid, semi-rigid, and flexible PVC film and sheeting. The product was rolls of PVC film for use in shower curtains, vinyl for laminating surfaces made of materials such as wood, metal and fiberglass. During a 1984 reorganization, GenCorp, Inc. was formed as the parent holding company. The facility under DiversiTech-GenCorp continued to operate the facility. In 1989, as part of the parent company (GenCorp) the facility became a division called Decorative and Building Products. In 1999, the Decorative and Building Products division was spun-off by GenCorp to OMNOVA Solutions, Inc., which produced commercial wall coverings, upholstery fabrics and laminates for finished surfaces of furniture, walls, vehicle seating, and a variety of other uses. OMNOVA also manufactured emulsion polymers and specialty chemicals for coated paper, carpeting, disposable and durable nonwovens, and textiles. The facility continues to be owned and operated by OMNOVA.

The facility consists of 34 buildings of various sizes and serving various purposes. The facility is surrounded by a chain-link fence topped with three strands of barbed wire. Manned security gates are present at three entrances to the facility. Brush Creek (and its tributary Down's Run) traverse the northern portion of the facility with approximately three acres used for parking north of the creek. All of the facilities major structures and operations were (and continue to be) located south of Brush Creek. The main manufacturing facility (consisting of Buildings 6, 6A, 6B) is a multiple-level structure and includes a basement/utility tunnel below ground surface level. The above-ground manufacturing structure consists of at least three levels. Spill/wastewater collection sumps are present within the basement/utility tunnel. An adjacent building that is also used for manufacturing (Building 30) straddles Brush Creek. Areas to the north, south, and east of the facility are residential properties. An abandoned factory is located east of the facility.

The facility currently manufactures PVC film/sheeting for awnings, tarps, notebook covers, and exposed ceiling panel applications. Operations at the facility include raw material handling, storage, batch mixing, calendaring (smoothing into sheets), and product storage. Primary raw materials used in the PVC manufacture include PVC granules (resin), process oils (plasticizers), and stabilizers. Various additives (thickeners, fillers such as calcium carbonate and clay, and colors) are added during the process. The resins are transferred from the bulk trailers into the outside storage silos using the on-site blowers. The process oils are stored in the aboveground storage tank (AST) farm. The facility operates under a hazardous

¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

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waste large quantity generator (LQG) permit, air permit (Title V Permit [65-00207] issued on February 2, 2000), and stormwater permit.

Wastes produced at the facility included spent methyl ethyl ketone (also identified as 2-butanone) (MEK), polychlorinated biphenyls (PCBs)-containing oils, scrap printing ink, vinyl resin, and pigment mixture. Unused MEK was sent to their Toledo plant for distillation and reclamation. No hazardous wastes were generated from the production of PVC; and offspec plasticizers and solvents were sent back to suppliers. In general, the types of process related wastes generated by the facility include the following materials:

- Color Room wastes (hazardous and non-hazardous)
- Waste oil and lubricants (non-hazardous, recycling)
- General cleanup, scrap solids from Banbury Mixers, rags (non-hazardous)
- Dust from Color Room dust collector (hazardous)
- Spilled resin (recycled)
- PVC scraps (non-hazardous, recycled)
- Parts washer fluid (hazardous)
- General plant trash (non-hazardous)

On July 31, 1980, a notification of Hazardous Waste Activity was submitted to the United States Environmental Protection Agency (USEPA) by General Tire and Rubber Company. The company identified itself as a generator, transporter, and storer of the following wastes: F001 (spent halogenated solvents), F005 (spent nonhalogenated solvents), K086 (wastes and sludges from ink formulation equipment containing chromium and lead), U002 (acetone), U013 (unknown), U028 (1,2-benzenedicorboxylic acid), U057 (cyclohexanone), U159 (2-butanone), U161 (methyl isobutyl ketone), U213 (tetrahydrofuran) and U220 (toluene). On November 13, 1980, the facility submitted a Part A Hazardous Waste Permit Application. The facility stated it would be generating 360,000 pounds per year of U159 waste. On July 23, 1981, an interim status hazardous waste permit was issued with a USEPA ID No. PAD004338000. The facility was permitted to up to 25,000 gallons per year of U159 waste in drums. On October 8, 1981, the facility notified Pennsylvania Department of Environmental Protection (PADEP) of a change of status from a generator and storage facility to a generator only. On October 12, 1981, a notification of modification of operations was submitted as a generator and noted the production of F001 and F005 wastes, corresponding to non-specific sources and the production of U002, U057, U159, U161, U162, U213, and U220 chemical-product wastes. On September 21, 1999, the facility submitted a Permit Modification/Transfer Request letter notifying that Gencorp's Decorative and Building Products division would be called OMNOVA Solutions, Inc. beginning on October 1, 1999. The notification form indicated that the facility was a LQG of hazardous wastes carrying the following waste codes: F001, D007, D008, and D039.

Groundwater was not encountered during previous investigations or underground storage tank (UST) removals conducted at the facility. It is not likely that subsurface releases reached the groundwater.

3.	Has the migration of contaminated groundwater stabilized (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater" as defined by the monitoring locations designated at the time of this determination)?
	If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination" ²).
	If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination" ²) - skip to #8 and enter "NO" status code, after providing an explanation.
	If unknown - skip to #8 and enter "IN" status code.
Rationa	ale and Reference(s):
4.	Does "contaminated" groundwater discharge into surface water bodies?
	If yes - continue after identifying potentially affected surface water bodies.
	If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.
	If unknown - skip to #8 and enter "IN" status code.
Rationa	ale and Reference(s):

² "existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

5.	Is the discharge of "contaminated" groundwater into surface water likely to be " insignificant " (i.e., the maximum concentration ³ of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?
	If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration ³ of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.
	If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration ³ of <u>each</u> contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations ³ greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.
	If unknown - enter "IN" status code in #8.

Rationale and Reference(s):

³ As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

6.	Can the discharge of "contaminated" groundwater into surface water be shown to be " currently acceptable " (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented ⁴)?
	If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR 2) providing or referencing an interim-assessment, 5 appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.
	If no - (the discharge of "contaminated" groundwater can not be shown to be " currently acceptable ") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.
	If unknown - skip to 8 and enter "IN" status code.
Ratio	nale and Reference(s):

⁴ Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

⁵ The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

7.	Will groundwater monitoring / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"
	If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."
	If no - enter "NO" status code in #8.
	If unknown - enter "IN" status code in #8.
Dation	pole and Deference(s).

Rationale and Reference(s):

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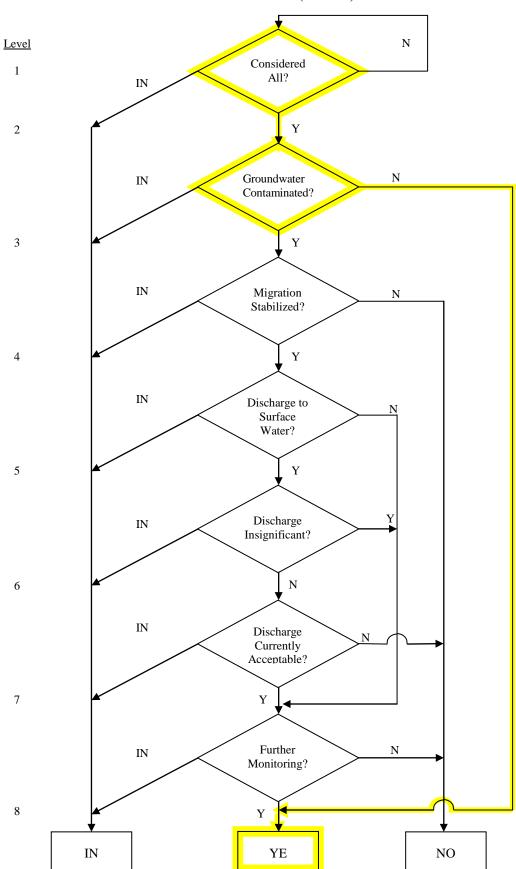
EI (6	event code CA750), and obta	atus codes for the Migration of Contaminated Greatin Supervisor (or appropriate Manager) signature opriate supporting documentation as well as a manager	e and date on the EI
X	YE Yes, "Migration of C	ontaminated Groundwater Under Control" has	been verified.
	_	information contained in this EI determination,	
	determined that the "Mig	ration of Contaminated Groundwater" is "Unde	r Control" at the
	OMNOVA Solutions, In		facility,
	EPA ID # PAD004338 0	000 , located at 1001 Chambers Avenue Je 15644	annette, Pennsylvania .
	control, and that monitoring within the "existing area of	nation indicates that the migration of "contamina ng will be conducted to confirm that contaminate of contaminated groundwater". This determination of significant changes at the facility.	d groundwater remains
	_ NO - Unacceptable migra	tion of contaminated groundwater is observed or	expected.
	_ IN - More information is	needed to make a determination.	
Completed by	(signature)		Date
	(print)		_
	(title)		_
Supervisor	(signature)		Date
	(print)		_
	(title)		
	(EPA Region or Sta	ite)	
Locations wh	ere References may be found	l:	
USEPA Reg Waste and C 1650 Arch S Philadelphia	themical Mgmt. Division treet	PADEP South West Regional Office 400 Waterfront Drive Pittsburgh, PA 15222	
Contact telep	hone and e-mail numbers		
(name)			
(phone#)			
(e-mail)			

Facility Name: OMNOVA Solutions, Inc.

EPA ID# PAD004338000

City/State Jeannette, Pennsylvania 15644

MIGRATION OF CONTAMINATED GROUNDWATER UNDER CONTROL (CA 750)



DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action Environmental Indicator (EI) RCRIS code (CA725) Current Human Exposures Under Control

facility Name:	OMNOVA Solutions, Inc.
Facility Address:	1001 Chambers Avenue Jeannette, Pennsylvania 15644
Facility EPA ID #:	PAD004338000
groundwater, sur	e relevant/significant information on known and reasonably suspected releases to soil, rface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste its (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI
	X If yes – check here and continue with #2 below.
	If no – re-evaluate existing data, or
	If data are not available skip to #6 and enter "IN" (more information needed) status code.

BACKGROUND

Definition of Environmental Indicators (for the RCRA Corrective Action)

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

Definition of "Current Human Exposures Under Control" EI

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility [i.e., site-wide]).

Relationship of EI to Final Remedies

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

Duration / Applicability of EI Determinations

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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2. Are groundwater, soil, surface water, sediments, or air **media** known or reasonably suspected to be "**contaminated**" above appropriately protective risk-based "levels" (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	Yes	No	?	Rationale/Key Contaminants
Groundwater		X		Groundwater was not encountered during previous investigations.
Air (indoors) ²		X		Evaluation concluded vapor intrusion pathway not a concern.
Surface Soil (e.g., <2 ft)			X	Releases have been remediated; however, some confirmation sampling was limited or absent.
Surface Water		X		No recent releases have been reported.
Sediment		X		No releases have been reported.
Subsurf. Soil (e.g., >2 ft)			X	Releases have been remediated; however, some confirmation sampling was limited or absent.
Air (outdoors)		X		Facility operates under a Title V Permit.
"levels," and not exceeded If yes (for an citing approp	referencing l. ny media) - o priate "level	g sufficient continue af s" (or prov	supporting	YE," status code after providing or citing appropriate g documentation demonstrating that these "levels" are sying key contaminants in each "contaminated" medium, planation for the determination that the medium could supporting documentation.
\mathbf{X} If unknown (for any med	dia) - skip t	to #6 and 6	enter "IN" status code.

Rationale and Reference(s):

OMNOVA Solutions Inc. (OMNOVA or facility) is located on approximately 28 acres of land in the town of Jeannette, Westmoreland County, Pennsylvania in a valley floor bordered along the north by Chamber Avenue, along the east by Lewis Avenue, and along the south by Division Street. The facility has over a hundred years of industrial history that began with the manufacture of rubber products in 1901. The original manufacturing facility, known as the Pennsylvania Rubber Company, manufactured bicycle and automotive tires, inner tubes, and other rubber products. The facility was owned by the Pennsylvania Rubber Company in 1945. In 1945, the Chemical Plastics Division of General Tire and

¹ "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based "levels" (for the media, that identify risks within the acceptable risk range).

² Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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Rubber Company purchased the facility, which manufactured tires, tennis balls, gas masks, inflatable pontoons and rafts. Between 1976 and 1978, the facility ceased the manufacture of rubber products and began the manufacture of polyvinyl chloride (PVC) film. In 1980, the facility's operations consisted of calendaring, printing, embossing, laminating rigid, semi-rigid, and flexible PVC film and sheeting. The product was rolls of PVC film for use in shower curtains, vinyl for laminating surfaces made of materials such as wood, metal and fiberglass. During a 1984 reorganization, GenCorp, Inc. was formed as the parent holding company. The facility under DiversiTech-GenCorp continued to operate the facility. In 1989, as part of the parent company (GenCorp) the facility became a division called Decorative and Building Products. In 1999, the Decorative and Building Products division was spun-off by GenCorp to OMNOVA Solutions, Inc., which produced commercial wall coverings, upholstery fabrics and laminates for finished surfaces of furniture, walls, vehicle seating, and a variety of other uses. OMNOVA also manufactured emulsion polymers and specialty chemicals for coated paper, carpeting, disposable and durable nonwovens, and textiles. The facility continues to be owned and operated by OMNOVA.

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Wastes produced at the facility included spent methyl ethyl ketone (also identified as 2-butanone) (MEK), polychlorinated biphenyls (PCBs)-containing oils, scrap printing ink, vinyl resin, and pigment mixture. Unused MEK was sent to their Toledo plant for distillation and reclamation. No hazardous wastes were generated from the production of PVC; and offspec plasticizers and solvents were sent back to suppliers. In general, the types of process related wastes generated by the facility include the following materials:

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- Waste oil and lubricants (non-hazardous, recycling)
- General cleanup, scrap solids from Banbury Mixers, rags (non-hazardous)
- Dust from Color Room dust collector (hazardous)
- Spilled resin (recycled)
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- Parts washer fluid (hazardous)
- General plant trash (non-hazardous)

On July 31, 1980, a notification of Hazardous Waste Activity was submitted to the United States Environmental Protection Agency (USEPA) by General Tire and Rubber Company. The company identified itself as a generator, transporter, and storer of the following wastes: F001 (spent halogenated solvents), F005 (spent nonhalogenated solvents), K086 (wastes

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and sludges from ink formulation equipment containing chromium and lead), U002 (acetone), U013 (unknown), U028 (1,2-benzenedicorboxylic acid), U057 (cyclohexanone), U159 (2-butanone), U161 (methyl isobutyl ketone), U213 (tetrahydrofuran) and U220 (toluene). On November 13, 1980, the facility submitted a Part A Hazardous Waste Permit Application. The facility stated it would be generating 360,000 pounds per year of U159 waste. On July 23, 1981, an interim status hazardous waste permit was issued with a USEPA ID No. PAD004338000. The facility was permitted to up to 25,000 gallons per year of U159 waste in drums. On October 8, 1981, the facility notified Pennsylvania Department of Environmental Protection (PADEP) of a change of status from a generator and storage facility to a generator only. On October 12, 1981, a notification of modification of operations was submitted as a generator and noted the production of F001 and F005 wastes, corresponding to non-specific sources and the production of U002, U057, U159, U161, U162, U213, and U220 chemical-product wastes. On September 21, 1999, the facility submitted a Permit Modification/Transfer Request letter notifying that Gencorp's Decorative and Building Products division would be called OMNOVA Solutions, Inc. beginning on October 1, 1999. The notification form indicated that the facility was a LQG of hazardous wastes carrying the following waste codes: F001, D007, D008, and D039.

Surface Soil: A spill of an ink/solvent/additive mixture occurred in May 1994 at an unspecified location in the facility. The spill was cleaned up; however, confirmation samples are not available to verify the cleanup. No releases were documented or observed during closure of the 400,000-gallon Fuel Oil Aboveground Storage Tank (AST) (AOC 5); therefore, OMNOVA did not confirm that the area was clean through sampling.

Releases of phthalate contamination to surface soil at the Auxiliary Linear Phthalate Tanks (12 and 13) located at AOC 4 at the facility were removed with the underground storage tanks (USTs) in 1990. Elevated concentrations of total petroleum hydrocarbons (TPH) were recorded for surface soils associated with these tanks. There is no documentation that specifies that the soils with elevated concentrations of TPH were removed from the site and no analytical testing results for phthalates; therefore, it is unknown if soil contamination associated with these tanks remains on-site.

Releases to soil have been remediated; however, some confirmation sampling was limited or absent. Therefore, it is unknown whether exposure controls are relevant for subsurface soil for this facility.

Access to the facility is restricted by a chain-link fence topped by a 3-strand barbed wire fence and security gates at two entrances. Stream banks along Brush Creek are steep and further discourage trespassing.

Subsurface Soil: Subsurface releases within the Plasticizer UST Tank Farm (Tanks 01 to 08 - AOC 1) were remediated and concentrations of phthalates and esters remained in the range of 200 to 270 milligrams per kilogram (mg/kg) as measured as TPH. Testing for chemical specific semi-volatile organic compounds was not completed; therefore, phthalates and esters may still be present in subsurface soils.

Subsurface releases within the Fuel Oil UST Tank Farm (Tanks 10 and 11 - AOC 2) were remediated and concentrations of TPH remained in the range of 82 to 170 mg/kg of TPH. The excavation and backfilling was conducted in coordination with PADEP in 1995. Analyzing for benzene, toluene, ethylbenzene, and xylenes (BTEX) were reportedly completed at the time of closure. However, analyses for semi-volatile organic compounds were not completed and some hydrocarbons may still be present in subsurface soils.

Subsurface soil conditions associated with the former MEK UST (Tank 09) AOC 3 that was removed in 1989 is not well documented. Two samples were collected for petroleum constituents, but no samples were collected for MEK (i.e., 2-butanone); therefore, it is unknown if soils are contaminated with the product that was stored in the tank.

Releases of VOCs to the subsurface soil were excavated and remediated at the former Gasoline UST (AOC 6) location, believed to have been in front of Building 17. Seven soil samples were collected and analyzed for PADEP's unleaded gasoline parameters subsequent to the remediation. Analytical results from these soil samples were reported to be below detection limits with the exception of one sample that contained benzene at a concentration of 0.064 mg/kg. The benzene

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concentration is well below the PADEP soil to groundwater, used aquifer, non-residential medium-specific concentrations (MSCs) (5 mg/kg) and the most conservative PADEP direct contact non-residential MSC (0-2 feet) (210 mg/kg). While this area is reported to have been remediated, the documentation related to the remediation is not currently on-file with PADEP or USEPA.

Releases to soil have been remediated; however, some confirmation sampling was limited or absent. Therefore, it is unknown whether exposure controls are relevant for subsurface soil for this facility. Access to the facility is restricted by a chain-link fence topped by a 3-strand barbed wire fence and security gates at two entrances. Stream banks along Brush Creek are steep and further discourage trespassing.

Groundwater: Groundwater was not encountered during previous investigations or UST removals conducted at the facility. It is not likely that subsurface releases reached the groundwater.

Surface Water: The facility discharges contact-cooling industrial wastewater to Brush Creek under a National Pollutant Discharge Elimination System (NPDES) permit to Outfall 001 and non-contact cooling industrial wastewater to Outfall 003. Wastewater undergoes pretreatment via oil/water separation only from the contact-cooling wastewater prior to being discharged to Outfall 001. The facility has violated permit limits in the past for cadmium, biological oxygen demand (BOD), and temperature. Corrective actions were taken. The most recent inspections in 2006 did not note any problems. Recent floods of Brush Creek reportedly did not cause any releases to the surrounding environment.

Air: The facility operates under a Title V air operating permit. Based on documented historical remediation efforts at the facility, removal of all USTs, and the fact that the benzene concentration that appeared to be left in place was very low, it is not expected that vapor intrusion attributable to subsurface contamination at this facility is a potential concern assuming a nonresidential scenario.

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3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

				Potential Hur	<u>man Receptors</u> (Under Current C	onditions)
Contaminated Media	Residents	Workers	Day-Care	Construction	Trespassers	Recreation	$\underline{\text{Food}}^{\underline{3}}$
Groundwater Air (indoors)							
Soil (surface, e.g., <2 ft. Surface Water							
Sediment Soil (subsurface e.g., >2 f Air (outdoors)	t.						
Instructions for Sur	nmary Exposu	re Pathway E	valuation Tab	<u>le</u> :			
	. Strike-out sp contaminated"			nan Receptors' sp	aces for Media v	which are not	
	enter "yes" o			eteness" under ea	ch "Contaminate	d" Media Hum	ıan
Media - Hu	man Receptor ns may not be	combination	s (Pathways) d	bable combination o not have check they may be possi	spaces ("").	While these	
ente mai	er "YE" status n-made, prevei	code, after enting a compl	xplaining and/elete exposure p	taminated media-ror referencing con athway from each analyze major path	ndition(s) in-place n contaminated m	e, whether natura	
	es (pathways a tinue after pro			minated" Media - on.	Human Recepto	r combination) -	
	nknown (for a l'' status code.	ny "Contami	nated" Media -	Human Receptor	combination) - s	skip to #6 and ent	er
Rationale and Refe	rence(s):						

³ Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.

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4.	Can the exposures from any of the complete pathways identified in #3 be reasonably expected to be " significant " (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?
	If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."
	If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."
	If unknown (for any complete pathway) - skip to #6 and enter "IN" status code
5.	Can the "significant" exposures (identified in #4) be shown to be within acceptable limits?
	Can the "significant" exposures (identified in #4) be shown to be within acceptable limits? If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing <u>and</u> referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk
	Can the "significant" exposures (identified in #4) be shown to be within acceptable limits? If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment). If no (there are current exposures that can be reasonably expected to be "unacceptable")- continue and enter "NO" status code after providing a description of each potentially "unacceptable"

⁴ If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

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	Exposures Under Control" has been verified. EI Determination, "Current Human Exposur INOVA Solutions, Inc.	
EPA ID # PAD00433800	, located at 1001 Chambers Aver Pennsylvania 15644	nue Jeannette,
	expected conditions. This determination wi of significant changes at the facility.	ll be re-evaluated wh
NO – "Current Human Ex	osures" are NOT "Under Control."	
X IN – More information is	eeded to make a determination.	
Completed by (signature)		Date
		_ Date
(print)		_
(title)		_
Supervisor (signature)		Date
(print)		_
(title)		_
(EPA Region or State		_
Locations where References may b	found:	
USEPA Region III Waste and Chemical Mgmt. Divisi 1650 Arch Street Philadelphia, PA 19103	PADEP South West Regional Office 400 Waterfront Drive Pittsburgh, PA 15222	

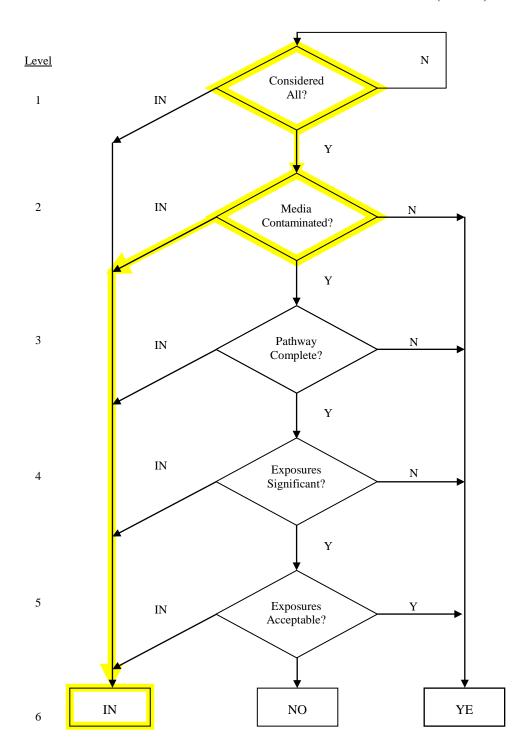
FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.

Facility Name: OMNOVA Solutions, Inc.

EPA ID# PAD0084338000

City/State Jeannette, Pennsylvania 15644

CURRENT HUMAN EXPOSURES UNDER CONTROL (CA725)



United States Environmental Protection Agency Region III Corrective Action Program

Environmental Indicator Inspection Report For

OMNOVA Solutions, Inc. 1001 Chambers Avenue Jeannette, Pennsylvania 15644

USEPA ID No. PAD004338000

Prepared By

Baker

December 2010

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NOTE: The site visit was conducted on September 22, 2009.

RCRA SITE INSPECTION REPORT

Purpose: To gather relevant information from the OMNOVA Solutions, Inc. facility (OMNOVA or facility), in order to determine whether human exposures and groundwater releases are controlled, as per Environmental Indicator (EI) Determination forms.

Documentation Review: Prior to the site visit, Mr. Matthew Myers and Mr. JP Kumar, of Michael Baker Jr., Inc. (Baker) conducted a records review of the Pennsylvania Department of Environmental Protection (PADEP) South West Regional Office and the U.S. Environmental Protection Agency (USEPA) Region III Philadelphia Office files. During the September 22, 2009 site visit, the facility provided the attendees a presentation of the environmental history (Resource Conservation and Recovery Act (RCRA) Corrective Action Status Assessment [Status Assessment]) and an Environmental Layout map. Subsequent to the site visit, OMNOVA provided Baker with an updated Status Assessment, solid waste management units (SWMUs) and areas of concern (AOC) map, a flow diagram detailing the oil/wastewater generation, and additional information/clarifications to be incorporated in the report. The Status Assessment addressed the eight SWMUs and five AOCs identified in the Preliminary Assessment (PA) performed by NUS Corporation (NUS) for the USEPA in 1991 and five new satellite accumulation areas (SAAs) and one AOC identified by OMNOVA and their environmental consultant SE Technologies, LLC.

Attendees at Site Inspection:

<u>Name</u>	<u>Organization</u>	<u>Phone Number</u>	<u>E-Mail Address</u>
Steve Vasko	OMNOVA	570-366-4032	stephen.vasko@omnova.com
John Finn	OMNOVA	330-869-4335	john.finn@omnova.com
Christine Balogh-	OMNOVA	724-523-7346	
Yantos			
Steve Grego	OMNOVA	724-523-7383	steve.grego@omnova.com
Roger Dhonau	SE	412-221-1100	rdhonau@se-env.com
	Technologies		
Elizabeth Bertha	PADEP	412-442-4345	ebertha@state.pa.us
Matthew Myers	Baker	412-375-3064	mmyers@mbakercorp.com
JP Kumar	Baker	412-269-6060	jpkumar@mbakercorp.com

Meeting Summary: A meeting at the OMNOVA facility was held with the attendees noted above on September 22, 2009. Mr. JP Kumar presented the facility with information regarding USEPA Region III's Corrective Action process, the EI Assessment Program and the legislation

driving this program. Under this investigation, USEPA Region III is focusing on two interim EIs to evaluate whether any unacceptable risk to human health and the environment is ongoing at each priority facility. The two indicators are determining if human exposures are controlled and groundwater releases are controlled. Prior to and during the site inspection, outstanding issues and discrepancies encountered in the file review summary were discussed.

The site visit continued with an overview of areas to be observed and a tour of the OMNOVA facility. Photographs of the site visit are presented in Appendix A: Photographs.

A. Location and Operational History of the Facility, Including all Wastes Generated at the Facility and their Management

Site Layout and Background Information

OMNOVA is the current owner/operator of a polyvinyl chloride (PVC) film/sheeting manufacturing facility for various applications with over a hundred years of industrial history that began with the manufacture of rubber products. The facility consists of 34 buildings of various sizes and serving various purposes. The facility is located on approximately 28 acres of land in the town of Jeannette, Westmoreland County, Pennsylvania in a valley floor bordered along the north by Chamber Avenue, along the east by Lewis Avenue, and along the south by Division Street. Appendix B: Figure 1 - Facility Location Map shows the location of the facility in relation to the nearby surroundings.

The facility is surrounded by a chain-link fence topped with three strands of barbed wire. Manned security gates are present at three entrances to the facility. Brush Creek (and its tributary Down's Run) traverse the northern portion of the facility with approximately three acres used for parking north of the creek. All of the facilities major structures and operations were (and continue to be) located south of Brush Creek. The main manufacturing facility (consisting of Buildings 6, 6A, 6B) is a multiple-level structure and includes a basement/utility tunnel below ground surface level (Appendix B: Figure 2 - Facility Layout). The above-ground manufacturing structure consists of at least three levels. Spill/wastewater collection sumps are present within the basement/utility tunnel. An adjacent building that is also used for manufacturing (Building 30) straddles Brush Creek. Areas to the north, south, and east of the facility are residential properties.

An abandoned factory is located east of the facility (Appendix B: Figure 1 - Facility Location Map).

In 1901, Herbert DuPuy built the original manufacturing facility as the Pennsylvania Rubber Company, which manufactured bicycle and automotive tires, inner tubes, and other rubber products. From 1901 until 1945, the facility was owned by the Pennsylvania Rubber Company. In 1945, the Chemical Plastics Division of General Tire and Rubber Company purchased the facility, which manufactured tires, tennis balls, gas masks, inflatable pontoons and rafts.

Between 1976 and 1978, the facility ceased the manufacture of rubber products and began the manufacture of PVC film. In 1980, the facility's operations consisted of calendaring, printing, embossing, laminating rigid, semi-rigid, and flexible PVC film and sheeting. The product was rolls of PVC film for use in shower curtains, vinyl for laminating surfaces made of materials such as wood, metal and fiberglass.

During reorganization in 1984, GenCorp, Inc. was formed as the parent holding company. The facility under DiversiTech-GenCorp continued to operate the facility. In 1989, as part of the parent company (GenCorp) the facility became a division called Decorative and Building Products. In 1999, the Decorative and Building Products division was spun-off by GenCorp to OMNOVA Solutions, Inc., which produced commercial wall coverings, upholstery fabrics and laminates for finished surfaces of furniture, walls, vehicle seating and a variety of other uses. OMNOVA also manufactured emulsion polymers and specialty chemicals for coated paper, carpeting, disposable and durable nonwovens, and textiles. The facility continues to be owned and operated by OMNOVA.

Wastes produced at the facility included spent methyl ethyl ketone (also identified as 2-butanone) (MEK), polychlorinated biphenyls (PCBs)-containing oils, scrap printing ink, vinyl resin, and pigment mixture. Unused MEK was sent to the Toledo plant for distillation and reclamation. No hazardous wastes were generated from the production of PVC; and off-spec plasticizers and solvents were sent back to suppliers.

According to the Status Assessment, the facility currently manufactures PVC film/sheeting for awnings, tarps, notebook covers, and exposed ceiling panel applications. Operations at the facility include raw material handling, storage, batch mixing, calendaring (smoothing into sheets),

and product storage. Primary raw materials used in the PVC manufacture include PVC granules (resin), process oils (plasticizers), and stabilizers. Various additives (thickeners, fillers such as calcium carbonate and clay, and colors) are added during the process. The resins are transferred from the bulk trailers into the outside storage silos using the on-site blowers. The process oils are stored in the aboveground storage tank (AST) farm. The facility operates under a hazardous waste large quantity generator (LQG) permit, air permit, and stormwater permit.

The types of process related wastes generated by the facility include the following materials:

- Color Room wastes (hazardous and non-hazardous)
- Waste oil and lubricants (non-hazardous, recycling)
- General cleanup, scrap solids from Banbury Mixers, rags (non-hazardous)
- Dust from Color Room dust collector (hazardous)
- Spilled resin (recycled)
- PVC scraps (non-hazardous, recycled)
- Parts washer fluid (hazardous)
- General plant trash (non-hazardous)

The Color Room waste is generated from cleaning of the mixing equipment and vessels, and from mixed color material that was off-specification or otherwise unusable. The cleaning material is disposed off site as hazardous since it may contain lead and chromium. The off-specification material is similarly hazardous if it contains a pigment with lead or chromium. Waste oil, lubricants are generated at the Banbury Mixers from bearing seal lubrication, and waste oil from the waste-water outfall oil-water separator. The solids are generated during cleaning of the mixers and also include rags from general facility cleaning. The hazardous wastes generated on site include clean-up solvent waste (waste codes D001 and D039/D040) from the laminating operation, and chromium and lead containing wastes (D007 and D008) from stabilizers and pigments used in the manufacturing process and color operations. Dust collector wastes are characterized as barium containing wastes (D005). The facility characterizes waste based on a combination of generator knowledge and analytical testing and disposes of hazardous wastes off site.

The facility representatives at the site visit meeting described recent flooding (during June/July of 2009) when upstream debris had blocked the culvert at the facility. Environmental documents that had been stored in the file room on the first floor (former SWMU 5) were reportedly

saturated with water. Although upstream sediment and debris entered the manufacturing facility, no release of raw material or product from the facility to the environment is reported to have occurred. According to the facility, the Army Corps of Engineers and the Federal Emergency Management Agency (FEMA) were notified. The facility segregated the debris and stockpiled it in the northwestern open space and surrounded it by silt fence or within roll-off bins.

To date, there has been no formal RCRA corrective action investigational or remedial action at the facility; however, eight SWMUs and six AOCs have been removed.

Appendix C contains an inventory of the regulatory documents and references used in this report.

Permit and Regulatory Action History

The facility produced solid/hazardous waste, wastewater, and air emissions. The following subsections describe the history of associated activities of the facility.

Waste

On May 5, 1972, PADEP initiated the permitting process with a letter and accompanying forms for solid waste disposal or processing and the request for Phase I of a three-phase module. On May 17, 1972, the facility replied that they did not operate or maintain a solid waste disposal or processing facility. The letter noted contracts with hauling and disposal firms to dispose of waste generated by the facility.

On July 31, 1980, a notification of Hazardous Waste Activity was submitted to the USEPA by General Tire and Rubber Company. The company identified itself as a generator, transporter, and storer of the following wastes: F001 (spent halogenated solvents), F005 (spent nonhalogenated solvents), K086 (wastes and sludges from ink formulation equipment containing chromium and lead), U002 (acetone), U013 (unknown), U028 (1,2-benzenedicorboxylic acid), U057 (cyclohexanone), U159 (2-butanone), U161 (methyl isobutyl ketone), U213 (tetrahydrofuran) and U220 (toluene). USEPA acknowledged receipt of the notification on December 29, 1980.

On November 13, 1980, the facility submitted a Part A Hazardous Waste Permit Application. The facility stated it would be generating 360,000 pounds per year of U159 waste. On July 23, 1981, an interim status hazardous waste permit was issued with a USEPA ID No.

PAD004338000. The facility was permitted to up to 25,000 gallons per year of U159 waste in drums.

On October 8, 1981, the facility notified PADEP of a change of status from a generator and storage facility to a generator only. The change resulted from the facility no longer storing scrap inks and solvent before being transported for reuse at their Toledo facility. In June 1981, and in a followup letter in November 1981, PADEP requested the facility submit a Treatment Storage and Disposal (TSD) permit; however, the facility replied on November 18, 1981, reiterating their intent to not be listed as a TSD facility. On October 12, 1981, a notification of modification of operations was submitted as a generator and noted the production of F001 and F005 wastes, corresponding to non-specific sources and the production of U002, U057, U159, U161, U162, U213, and U220 chemical-product wastes.

On April 5, 1982, PADEP responded to an inquiry regarding the disposal of paper bags containing residual PVC resin from the facility. A warning label on the bags regarding the release of vinyl chloride was raised as a concern by a local financial institution. The response from PADEP stated that PVC resin is not hazardous in itself, and the warning regarding the release of vinyl chloride was a precaution in case large quantities of the material were stored in enclosed areas such that any unreacted monomer (vinyl chloride) may accumulate and result in a health hazard to workers.

On November 4, 1982, PADEP served a Notice of Violation (NOV) based on an October 15, 1982 inspection noting the following violations: 55-gallon drums of hazardous waste were not marked with hazardous waste warning labels; several drums of hazardous waste (F005) were being stored on site for durations in excess of 90 days; the storage area for the 55-gallon drums did not have containment system or adequate aisle space; several containers of spent MEK were stored outside the storage building and did not have accumulation dates or labels; a Preparedness, Prevention, and Contingency (PPC) plan was not approved; and adequate personnel training was not documented and no records were available.

On November 10, 1982, PADEP submitted a letter stating flaws in the PPC plan, which did not address fire, explosion, and emissions to other media (air, soil, and groundwater), and because it lacked emergency procedural information.

During 1982/1983, General Tire and Rubber Company was assisted by Sunohio, Inc. in a process to reclaim up to 600 gallons of Therminol-55 (PCB heat-transfer fluid) from equipment and replace it with non-PCB oils from the No. 4 calendar line rollers heating oil system. There is no documentation to indicate if they were successful in elimination of PCBs. (Note: The facility stated that they currently use heat-transfer fluid, also called Therminol-55, is free of PCBs).

On January 4, 1983, PADEP notified Westmoreland County and the City of Jeannette about the facility's solid waste permit application.

On February 28, 1983, PADEP issued a letter containing the results of a RCRA inspection that was conducted on February 11, 1983. Violations were noted as follows: manifests did not include appropriate information and were not supplied in adequate number; drums containing MEK were not marked with accumulation dates or contents, or were in storage longer than 90 days; a PPC plan in accordance with guidelines was not developed; and employees were not adequately trained with regard to hazardous waste management.

On March 6, 1984, PADEP requested analytical data for three wastes streams in support of a Module I application. The three waste streams consisted of a filler material of aluminum silicate and calcium carbonate, PVC resin, and off-specification plastic waste.

On May 15, 1986, the facility replied to USEPA's request regarding SWMUs stating the permitted nature of their hazardous waste generation activity and the change in the status of their storage to less than 90-days as previously notified.

On December 11, 1986, the facility submitted a waste minimization supplemental sheet, addressing the following: reduction of scrap vinyl product; recycling of scrap ink and wash-up solvent; and recycling scrap lubricating oil.

On September 22, 1988, PADEP issued a NOV for the following violations noted during an inspection on August 31, 1988: dirt and stone overlying seven plasticizer underground storage tanks (USTs) were contaminated with various plasticizer oils, some of which may be considered hazardous wastes when spilled; and 5-gallon buckets were overflowing with a plasticizer and rain-water mixture at each UST location (AOC 1). All were required to be cleaned up as a routine housekeeping practice under the implementation of the PPC plan. Other violations were

as follows: one shipment of a listed hazardous waste (F005) was transported by an unlicensed hazardous waste transporter; and one shipment of ignitable waste (D001) was transported using the USEPA Uniform Manifest instead of the Pennsylvania manifest.

On November 30, 1988, the facility informed USEPA of a change in name because of the merger of DiversiTech General Inc., with the parent company, GenCorp Inc. The letter requested the same change on its National Pollutant Discharge Elimination System (NPDES) permit. The same notification was made to PADEP on December 16, 1988, with the additional requests for changes to be made to their waste, NPDES, and air permits. On January 9, 1989, a formal change of name was requested by PADEP. The facility submitted the formal notification of name change on January 27, 1989.

On January 20, 1989, the GenCorp resubmitted a Notification of Hazardous Waste Activity Form and listed they were generating F005 (spent nonhalogenated solvents [MEK]) and D001 characteristic waste.

On March 28, 1989, PADEP informed the facility regarding the proper disposal of contaminated stone chips and gravel near the seven plasticizer USTs (AOC 1).

On May 19, 1994, a Spill Incident Report from the facility described the release of approximately 50 gallons of an ink mixture containing pigment, solvent, and other additives on to a paved area, with some overflow to adjacent grass. The liquid was recovered and the affected soil was removed and containerized in seven drums. The facility reinforced the correct pallet trucking practice and reviewed possible additional training for drum transportation safety for facility personnel.

On June 2, 1994, the facility responded to a leak of Synpron 1797 from a delivery truck that originated from Synthetic Products Company, Stratford, Connecticut. Approximately 20 gallons of the product leaked from a 500-gallon tank. Most of the product spilled into a tractor trailer which was relocated to a diked area within the plant upon discovery. A small portion of the spill that leaked onto the ground was cleaned up with adsorbent material by a remediation contractor the same day.

On July 27, 1994, PADEP requested the facility supply a source reduction strategy (SRS) for review and sharing of appropriate information with other generators.

On March 16, 1995, the facility addressed the late return of manifests from Research Oil.

On September 21, 1999, the facility submitted a Permit Modification/Transfer Request letter notifying that Gencorp's Decorative and Building Products division would be called OMNOVA Solutions, Inc. beginning on October 1, 1999. The notification form indicated that the facility was a LQG of hazardous wastes carrying the following waste codes: F001, D007, D008, and D039.

On March 14, 2006, a NOV was issued on based on the inspection conducted on March 9, 2006. An SRS for each waste stream addressed in the Form 25-R was incomplete or missing. On May 5, 2006, the facility issued a progress report addressing steps taken to correct the violations in the March 14, 2006 NOV.

On April 25, 2008, the facility submitted a Form 25R source reduction strategy for the five waste streams of Lump PVC Vinyl, Process Wastewater, Waste Oil, General Plant Trash, and Power Cleaner.

Air

On July 30, 1992, a petition for review and consent decree was issued by PADEP for settlement of violations of the Air Pollution Control Act by the facility. According to the decree, the facility's volatile organic compound (VOC) emissions from the rotogravure and VPC coater processes exceeded 100 tons per year for calendar year 1987 and continued to have the potential to exceed 100 tons per year in 1992. The emission rates exceeded the 2.7 tons per year (tpy) limit according to 25 Pennsylvania Code Section 129.52(a), which requires a reduction of VOC content or an increase in solids content of ink. The decree required monthly progress reports detailing replacements of the solvent-based inks; conversions to water-based inks; and submission of a comprehensive report by March 31, 1993, concluding whether the compliance can be achieved. The decree also stipulated financial penalties for failure to comply.

A list of air emission sources was reviewed by PADEP for a Title V application in 1997. The most significant sources of VOCs were identified as four calendar lines used to extrude/roll

polymer film material, ranging from 7.2 to 12.9 tpy of actual VOC emissions reported for 1995. Additional sources of particulate (PM10) and nitrous oxides (NOx) were determined to be insignificant in comparison to the main sources.

An emission inventory and Title V emission fee request was submitted by PADEP on July 15, 1999. The letter stated the 1998 emission inventory data have been entered into the Air Information Management System (AIMS) database.

The facility requested a permit modification/transfer request on September 21, 1999 because of its acquisition by OMNOVA. The letter also requested a State Only/Title V Operating Permit Administrative Amendment.

A final Title V Permit (65-00207) was issued on February 2, 2000.

The facility informed PADEP on March 13, 2001 of a change in their manufacturing process. A membrane-roofing product would be added to their traditional PVC films. One of the retired pieces of equipment (rotogravure) was proposed to be brought back in line. The additions from the new process would include 0.409 tpy of triethyl amine (TEA) (a hazardous air pollutant [HAP]) and 4.05 tpy of non-HAP VOCs. An additional 4.5 tpy of VOCs from the base film laminating process would also be emitted. The existing permit allowed 8 tpy of VOCs. PADEP approved the change in the process on April 17, 2001.

On May 2, 2002, the facility applied for a permit for emissions from two new boilers that would use natural gas with an input of 12.5 million British thermal units (BTUs) per hour. The boilers would emit an estimated 4.47 tpy of carbon monoxide (CO) and emit 1.7 tpy of NOx based on a low-NOx technology. Unless extreme winter conditions were encountered, only one boiler would be in operation at any time. On May 28, 2002, PADEP provided a general plan approval for the boilers with stipulations to include fuel metering and flue-gas recirculation.

On May 31, 2002, PADEP approved the application to allow for the construction and operation of two Industrial Combustion Co., Model No. LNDG-145P-145P-30, 12.5 million BTUs per hour, natural gas-fired boilers with flue gas recirculation.

PADEP acknowledged the receipt of Part I Notification of Maximum Available Control Technology (MACT) as required under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) and determined that no further action was required under the MACT application process.

On July 30, 2004, an application for renewal of the Title V operating permit was submitted. A notice of intent to renew the permit was published in the local news paper and after a comment period, the permit was renewed for a five-year term from July 26, 2005 to July 26, 2010.

On August 21, 2006, the facility submitted a compliance certification statement for the period spanning July 25, 2005 to July 26, 2006. No compliance issues were reported.

On October 24, 2006, PADEP exempted seven resin storage silos from plan approval/operating permit.

On February 27, 2007, PADEP informed the facility that the general permit for the two boilers that were added in 2002 were not required to be renewed because they were included in the Title V permit.

On November 15, 2007, PADEP issued a NOV to the facility for not submitting the Title V compliance certifications as required by the Title V permit. On November 20, 2007, the facility submitted a compliance certification spanning the period from July 26, 2006 to July 26, 2007.

On December 27, 2007, PADEP determined that a new product proposed to be introduced by the facility, involving top coating of a thick PVC sheet with a solvent topcoat in a lawn and garden tractor application would result in emissions within the de-minimis emissions increases; therefore, no additional controls would be required.

NPDES

Industrial discharges from the facility were studied in 1965 for potential adverse impacts to the environment. On September 16, 1965, on behalf of the facility, Betz Laboratories, Inc. (Betz) informed PADEP (the Pennsylvania Department of Health, Sanitary Engineering Division) of plans to conduct preliminary studies and the corrective measures being taken at the facility to minimize releases of oil in the discharges. Cooling water contaminated by contact with

lubricated machinery was being discharged to Brush Creek. The following month, the facility notified PADEP that the water was being recirculated into a reservoir and discharges from the reservoir were planned to be treated via a baffle mechanism to coalesce and separate the oil. An application for discharge of industrial waste and the report from studies conducted by Betz were submitted to PADEP on November 12, 1965. PADEP replied on January 20, 1966 requesting further information including details of sumps and baffling mechanisms; flow rates and chemical characteristics of four possible outfalls from the facility; and a design engineer's report demonstrating that either these outfall waters did not need to be treated or alternatively, if treatment would be employed. An industrial waste discharge permit (466I4) was issued on September 30, 1966, predicated by the design supplied by Betz separating the oil and skimming it such that the discharge of water would contain no more than 30 milligrams per liter (mg/L) of oil and no more than a visually apparent iridescence.

On December 7, 1967, PADEP ordered modifications to the industrial discharge permit requiring the pH of the discharge be limited to a range of 6.0 to 9.0, and the dissolved iron concentration be less than 7.0 mg/L. The modified permit allowed the discharge pH to exceed 9.0 if the receiving stream was acidic. Furthermore, if surface water was used as raw water intake, its quality was required to be restored at the discharge location. In 1968, PADEP placed further stipulations on the temperature of the discharges and required the facility to submit project status schedule cards. A letter from the facility on May 19, 1969 concluded that the use of spray cooling on the retention pond resulted in keeping the discharge temperature within the stipulated limits. In 1970, additional modifications to the permit included the requirement for the submission of a plan for prevention of accidental release of pollutants.

On February 19, 1971, the facility provided analytical data (5-day biological oxygen demand [BOD], suspended solids, and extractable oil) of the effluent from the cooling water system and from Brush Creek surface water to demonstrate that no additional treatment was necessary.

On June 3, 1970, the facility submitted a pollution incident prevention plan. The list of previous incidents in this plan indicated that the only one accidental release of oil (approximately 100 gallons caused by overfilling) resulted in a release to a storm sewer. Since then, the facility took measures to install vents to all USTs with discharge elevations maintained higher than that of the expected delivery truck.

During 1971 through 1973, the facility applied for US Army Corps of Engineers Discharge Permit to Navigable Waters and responded to comments.

A discharge permit application (PA01759) was submitted to the USEPA in 1975. A draft permit was issued in 1976, stipulating a pH range, daily average and daily maximum limits for certain constituents (total suspended solids, oil and grease, and 5-day BOD), and visual characteristics on Outfall 001 effluent. A previously active outfall (Outfall 002) was to be discontinued.

In 1981, PADEP was implementing a strategy for reissuing NPDES permits to primary industries in Pennsylvania according to a schedule of the USEPA for developing best available technology (BAT) economically achievable. The facility was requested to submit an application by September 15, 1981. The facility's application was approved by USEPA in November 1981 for issuance by PADEP provided certain terms and conditions were met.

In 1982, PADEP issued a draft permit, which was subject to public notice and hearing. The amended permit was issued on July 1, 1983 with stipulations on Outfall 001 (which contained cooling water, boiler blowdown and stormwater) for suspended solids, BOD, oil and grease, and pH. The permit did not contain numerical stipulations for Outfall 003, which consisted of noncontact cooling water and stormwater.

An NPDES permit application was submitted on January 4, 1993 for industrial Outfall 001, and stormwater Outfalls 003, 006, 007, 008, 009, 010, 011, and 012. Outfall 001 consisted of contributions of effluent from a treatment pond (process water and water from a power house), makeup water for a boiler, and stormwater. Outfall 003 consisted of contributions from process water and storm water. Outfall 006 consisted of stormwater and other unknown sources. Other outfalls consisted primarily of water from roof drains. Samples from Outfalls 001, 003, and 006 were collected and analyzed. After evaluating the results, PADEP issued an NPDES permit on July 1, 1993.

The facility submitted an application for an NPDES permit renewal in 1996. PADEP issued a renewed NPDES Permit on June 30, 1997.

On February 4, 1997, PADEP extended the comment period on the NPDES permit renewal. On June 30, 1997, PADEP issued NPDES permit PA0001759 for the facility. On August 27, 1997,

the facility notified PADEP of their intent to submit a Toxics Reduction Evaluation (TRE) in support of the new NPDES permit.

On September 1, 1999, PADEP was notified of the change of ownership of the facility from GenCorp to OMNOVA. On November 18, 1999, PADEP transferred the NPDES permit and the Part II Permit for discharge to navigable waters.

The facility submitted quarterly progress reports during 1999. These reports detailed the ongoing actions by the facility to meet the Preliminary Water Quality Based Effluent Limitations (PWQBELs) that would go into effect on July 1, 2000.

The facility worked with PADEP during year 2000 to reduce the cadmium concentrations and temperature levels from Outfall 001. A letter to PADEP emailed on June 14, 2000 included concentrations of cadmium in the contact cooling water and indicated that by removing this source, the outfall was able to come into compliance with the limit for cadmium. The letter also noted measures that were taken to reduce the temperature of the water from Outfall 001. However, the facility did not expect to reduce the temperature adequately to comply with the limit. The facility was considering additional modifications to the facility in order to meet the temperature limit. However, before committing capital expenditure the facility requested that a variation to the stream temperature rise be considered by PADEP. (Note: During the site visit in 2009, the facility explained that the source of cadmium was pigment, which has been phased out because of their sustainability initiative regarding the use of heavy metals in pigments.)

On January 8, 2002, the facility submitted an application for renewal of their NPDES permit for stormwater, contact, and non-contact cooling water Outfalls 001, 003, and 006. Outfall 001 consisted of contact cooling water (from plastic-molding machinery from PVC film manufacture), and non-contact cooling water. Outfall 003 consisted of non-contact cooling water and stormwater. Outfall 006 consisted of stormwater. Results of analyses of samples for Outfalls 001, 003, and 006 were submitted, along with analytical sample results for the influent of the oil/water separator upstream of Outfall 101.

On September 26, 2008, the NPDES permit was renewed, according to the facility during the site visit in 2009. The permit continues to be based on a temperature limit instead of temperature rise.

B. Description of all Solid Waste Management Units (SWMUs) and/or Areas of Concern (AOCs)

Two PAs were conducted during the history of the facility: in 1987 while it was the General Tire and Rubber Company, and in 1991 while it was DiversiTech-GenCorp. SWMUs and AOCs, along with a preliminary description of manufacturing processes that produced the wastes, were presented in the PA (NUS, 1991). The Status Assessment provides additional manufacturing processes information; historic, closure and current waste management area information; a summary of the investigative information; and OMNOVAs description of exposure pathway controls or release controls instituted at the facility. Appendix B: Figure 2 - Facility Layout provides configurations of the facility buildings and precise locations of the SWMUs, AOCS and SAAs identified by OMNOVA. Appendix B: Figure 3 - Flow Diagram shows a cross-sectional (elevation) view of the process flow diagram indicating the locations where oil/wastewater were historically and are currently generated and accumulated in the main manufacturing facility.

SWMUs

SWMU 1 - SAA for Banbury Mixers Associated with Production Lines 1 and 2

The PA described SWMU 1 as the SAA associated with Production Lines 1 and 2, associated with calendar machines, which rolled PVC resin into sheets of film in Building 6. The calendar machines reportedly used large amounts of oil that leaked. The oil was channeled into buckets and hand-transported to nearby drums placed on wooden pallets. The building had concrete floors with no floor drains. Any spills within the building flowed to a sump that pumped the spilled material into an oil-separation reservoir. Filled 55-gallon drums were sealed and transported to other buildings (Building 13 or Building 28) for storage until off-site shipment. Production Lines 1 and 2 began operation in 1973 and 1949, respectively. It is believed that the accumulation of leaking lubricating oils in this area began when line No. 2 began operation in 1949 (PA, 1991).

The material stored in SWMU 1 is nonhazardous lubricating oil. Between 4 and 16 55-gallon drums (grounded) of wastes oil were produced monthly. Release controls described in the PA consisted mainly of a bermed perimeter to the concrete floors and the collection sumps. Spills in the building flow to a sump that pumps spilled material into the Oil/Water Separation Reservoir (former SWMU 8). No releases (outside the concrete containment) were reported or evidence of releases was observed during the PA.

The Status Assessment documents that Calendar Line 1 and 2 are steam-heated. Occasional leaks of oil from gear boxes may occur, which may travel via tunnels to the lower level and eventually into the spill-collection sump pit. The majority of the waste oil associated with this production line is generated from the lubricating of Banbury Mixers. The antiquated design of the Banbury Mixers is such that in order to keep the bearings free of dust, the oil is allowed to weep and wash away the dust.

SWMU 1 is located on the second floor of Building 6, currently holds up to 1 drum of nonhazardous waste lubricating oil from the Banbury Mixers, which feed Production Lines 1 and 2 (Status Assessment, 2009). In addition, scrap PVC film may have been accumulated, typically in Gaylord containers on the first floor, adjacent to the calendar, in this production area. Once the waste lubricating oil accumulation drum is full, it is transported to the Cement House (Building 13, SWMU 6) for storage of waste oil, pending off-site disposal. SWMU 1 is located on the second floor within the production building on a concrete floor and no drains are present in or near the accumulation area. Although oil may have occasionally spilled on the floor, the facility reports that there were no records of releases from the SWMU. This SWMU continues to be used to accumulate waste oil from these mixers. Currently, sumps in the basement/utility tunnels continue to operate for the collection of any spills or leaks of oily wastes; however, the wastewater is pumped to the oil/water separator in the wastewater treatment system in Building 34 before being discharged via Outfall 001.

SWMU 2 - Satellite Accumulation Area for Banbury Mixers Associated with Production Lines 3 and 4 (No. 4 Mixer) - (Note: Line 3 is currently mothballed)

The PA described SWMU 2 as the SAA associated with Production Line 3, associated with calendar machines, which rolled PVC resin into sheets of film. The description of the calendar machines and production of waste oils was identical to that described for SWMU 1. Also identical to SWMU 1, any spills within the building flowed to the sump. Production Line 3 began operation in 1951. The material stored in SWMU 2 is nonhazardous lubricating oil. Between 4 and 16 55-gallon drums (grounded) of wastes oil are produced monthly. Release controls described in the PA consisted mainly of a bermed perimeter to the concrete floors and the collection sumps. The sumps pumped the oily wastewater resulting from any spills to the Oil/Water Separation Reservoir (former SWMU 8). No releases (outside the concrete containment) were reported or evidence of releases was observed during the PA.

The facility reports that Calendar Line 3 was dismantled (Status Assessment, 2009). The original SWMU (drums stored on pallets), located on the second floor of Building 6, adjacent to Banbury Mixer 3 is closed and not in use. The relocated SWMU 2, within approximately 50 feet of the original location, currently holds one drum of non-hazardous waste oil from the adjacent Banbury Mixer, which feeds Production Line 4. In addition, scrap PVC film may have been accumulated typically in Gaylord containers on the first floor, adjacent to the calendar, in this production area. Once the waste lubricating oil drum was full, it would have been transported to the Cement House (Building 13, SWMU 6) for storage of waste oil, pending off-site disposal. This SWMU is located on the second floor within the production building on a concrete floor and no drains are present in or near the accumulation area. Although oil may have occasionally spilled on the floor, the facility reports that there were no records of releases from this SWMU. This SWMU continues to be used to accumulate waste oil from the No. 4 mixer.

The PA described SWMU 3 as the SAA associated with Production Line 4, associated with calendar machines, which rolled PVC resin into sheets of film. The description of the calendar machines and production of waste oils was identical to that described for SWMU 1. Also identical to SWMU 1, any spills within the building flowed to the sump. According to the PA, Production Line 4 began operation in 1968. According to the PA, no releases (outside the concrete containment) were reported to have occurred. As before, the PA did not specify the elevation of the floor where the calendar machines, the satellite accumulation area, or the sumps were located. Release controls described in the PA consisted mainly of a bermed perimeter to the concrete floors and the collection sumps. However, according to the facility, the manufacturing operations have not changed in the decades since the PA was conducted. It is likely that the sumps were always located at the lowest points (i.e., the basement/utility tunnels) within the building. At the time of the PA, the sumps pumped the oily wastewater resulting from any spills to the Oil/Water Separation Reservoir (former SWMU 8).

The facility reports that Calendar Line 4 has historically been heated by oil in a closed-loop system. The circulating heating pumps leak heating oil. Buckets are used to collect the heating oil (Therminol 55), which is transferred to drums. Any spills are promptly cleaned up. Waste oil and spill-cleanup rags are stored on the first floor and transported to Building 13 (SWMU 6) for off-site disposal. The other waste associated with Production Line 4 is produced by the Banbury Mixers as described in the following paragraph; however, it is stored at SWMU 2.

This SWMU, currently located on the second floor of Building 6A, typically held 1 drum of non-hazardous waste oil from the Banbury Mixer which fed Production Line 4 in the recent past. The waste lubricating oil from No. 4 mixer is now accumulated in the adjacent SWMU 2. In addition, scrap PVC film may have been accumulated, typically in Gaylord containers located adjacent to the calendar on the first floor in this production area. Once the waste lubricating oil drum was full, it was transported to the Cement House (Building 13, SWMU 6) for storage of waste oil, pending off-site disposal. This SWMU is located on the second floor within the production building on a concrete floor and no drains are present in or near the accumulation area. Although oil may have occasionally spilled on the floor, the facility reports that there were no records of releases from this SWMU. This SWMU is no longer operational.

SWMU 4 - East Ink Room and SWMU 5 - West Ink Room (Historical SWMUs)

SWMU 4 was located in the eastern portion of the building that housed the four production lines described previously. SWMU 5 was located in an adjacent building. The two SWMUs were associated with the storage of raw materials used in the vapor permeation coating and photogravure printing process. Waste MEK, a carrier for the pigments and the resins used in the printing process, was also stored in these areas.

Waste MEK was transported to the rooms by authorized personnel in buckets and transferred into 55-gallon metal drums stored in the rooms. The drums were grounded to protect against sparks. The rooms had concrete floors, cement-block walls, and door openings with berms. There were no floor drains. Filled drums were transported to another building for storage until off-site shipment. At the time of the PA, the east ink room had been in use since 1953. The starting date of the west ink room was not known. No release controls other than the concrete floor and bermed entrance were present in both rooms. According to the PA, no releases were reported to have occurred from either SWMU.

During the site visit in 2009, the former SWMU 4 area was the location of a maintenance/welding room. The facility reported there were no records of releases from this SWMU and this SWMU has not been in operation for more than 15 years (OMNOVA, October 2009).

During the site visit in 2009, the former SWMU 5 was used as a file room and office. The facility reported there were no records of releases from this SWMU and this SWMU has not been in operation for more than 15 years (OMNOVA, October 2009).

SWMU 6 - Building 13

Building 13 was constructed before 1945 and was originally used as a storage area for glue. The entire building was constructed with cement and acted as a large secondary containment vessel. The walls of the building were 20 inches thick. The building also featured a cement roof and concrete floors of unknown thickness. During the PA, drums of waste material were stored on wooden pallets located on the second floor of the building. The second floor had absorbent pads and fire control equipment near the drums of waste.

Floor drains led to a basement and discharged into 55-gallon drums. The concrete containment in the basement was approximately 100 feet by 40 feet by 6 inches deep, providing approximately 2,000 cubic feet of spill containment with a low spot for a sump. These served as the spill-containment measures.

It was reported that since 1980, the building stored wastes including: waste oils containing PCBs, vinyl resins, and drum labels indicating U211, D001, U159, D007 and D008 waste codes. Six 5-gallon containers of hydrochloric acid dating back to the 1960s were observed to be present in the building during the PA.

According to the PA, no releases had been reported from this SWMU.

During the site visit in support of the EI in 2009, SWMU 6 continued to be used for storage of hazardous waste. Floor drain inlets appeared to have been plugged with concrete.

SWMU 7 - Building 28

This SWMU was located west of the production building and used for storage of waste MEK-containing ink. The wastes were stored in 55-gallon steel drums on wooden pallets and grounded to protect against sparks. The building also stored raw materials used in production and absorbent material for spill cleanup. Access to the building was limited to authorized personnel, through a locked metal fire door. The building had a concrete floor and cement-block walls. The doorway was bermed to contain spills within the building. A sprinkler system was present in the building.

Building 28 had been in use since the early 1950s. Waste printing ink stored in 55-gallon steel drums at this location contained MEK, which is classified as U159 waste. At the time of the PA

inspection, there were approximately 300 drums filled with waste printing ink in this building.

The building with concrete floor and cement-block walls served as a secondary containment of the wastes. The room had a concrete floor and cement-block walls. Berms were located at all doorways. The doors had fusible links and closed automatically, presumably in case of a fire or explosion.

No history of releases had been reported for this SWMU.

During the site visit in support of the EI in 2009, this building was no longer used for the storage of MEK, which has been reportedly closed for more than 15 years for storage of MEK. However, the area was used as a laboratory and a satellite accumulation area for hazardous waste (SWMU 13).

SWMU 8 - Oil-Separation Reservoir (Historical)

This SWMU was located in the central part of the facility. Non-contact cooling water discharged via an NPDES permitted outfall as well as the facility's storm drains discharged into a 198,000-gallon reservoir provided with an oil skimmer. Oils that have leaked from the facility's production machinery into the cooling water were separated from the water by a large oil skimmer. The skimmer was a large rotating boom that moved across the surface of the water forcing the oil to a collection point. The oils were analyzed and found to contain PCB concentrations in the range of 50 to 100 parts per million (ppm). After they were skimmed from the surface of the water, the waste oils were transferred by metal pail into 55-gallon steel drums and stored as hazardous waste. Treated water was discharged into Brush Creek via NPDES permitted Outfall 001. No detectable concentrations of PCBs were reported to be found in the effluent of the reservoir.

Approximately two drums of oil were skimmed off the reservoir and taken to Building 13 for storage and off-site disposal every month. No secondary containment existed for the reservoir or skimmed oil. Oil-stained areas of concrete were observed around the drums containing the skimmed oil during the PA.

This SWMU was no longer present during the site visit in support of the EI in 2009. It was removed in 1990s, according to the facility (OMNOVA, October 2009). At the time of its

removal of the reservoir, the integrity of the reservoir was visually found to be intact and therefore, no further evaluation of the underlying soil was deemed necessary. "Stained surface soils near the oil skimmer were removed and disposed in accordance with the regulatory framework in effect at that time (off-site disposal at an approved landfill)" (OMNOVA, October 2009). The main electrical substation for the facility was constructed on a concrete pad at the location of this former SWMU. No post-closure testing information was reported to have been performed for this SWMU.

SWMUs 9 to 13 - Satellite Waste Accumulation Areas)

In the past few years, the facility has established five new SAAs within the various production buildings. Each of these consists of a single 55-gallon drum within secondary containment, located within the production buildings, on concrete of good integrity and away from any floor drains. These SAAs and the waste accumulated in them are as follows:

- Embosser Area Cleanup solvents (flammables for embosser rolls cleaning) in first floor of Building 30 –SWMU 9
- Calendar 4 Oil Accumulation Area (non-hazardous waste hear transfer oil and absorbents) on the first floor of Building 6A – SWMU 10
- Color Room Area A (paper bags for trace lead chromate residue) on second floor of Building 6B SWMU 11
- Color Room Area B (liquid coloring agents) on second floor of Building 6B SWMU 11
- Laboratory Building (miscellaneous hazardous analytical testing flammables) in Building 28 – SWMU 13.

Each of these SAAs has individual secondary containment units and is placed on concrete floors. No floor drains are located near these units. The locations of these SWMUs are depicted in Appendix B: Figure 2 - Facility Layout.

AOC 1 - Plasticizer UST Tank Farm (Tanks 01 through 08)

Historically, various liquid organic chemicals (primarily phthalates and adipates) were stored in a series of eight underground storage tanks (Tanks 01 through 08) located within a single pit along the southern side of the Power House. The tanks were emptied and removed in November, 1991. During the removal process, it was determined that soils surrounding these tanks had been impacted by these complex organics. Approximately 1,000 tons of soil was removed, resulting in a clean excavation pit except for the side bordering the adjacent fuel oil USTs (described as AOC

2), which was subsequently excavated during the removal of the two fuel oil USTs in January, 1995.

Numerous soil samples were collected during the closure of USTs 01 though 08. Initial soil samples ranged up to 9,000 mg/kg TPH. Six soil samples were collected from the excavation walls and floor subsequent to soil removal. The two samples collected near the active fuel oil tanks were 200 and 270 mg/kg. The remaining four were non-detect (<50 mg/kg). The excavation was backfilled with clean fill. No water was observed in the excavation pit and as soils from the final excavation floor were below detection, investigation of groundwater was not deemed necessary by PADEP.

AOC 2 - Fuel Oil USTs (Tanks 10 and 11)

Historically, fuel oil was stored in two 30,000-gallon USTs (Tanks 10 and 11) located along the south side of the Power House, immediately adjacent to the eight plasticizer USTs noted above. The oil tanks were emptied and closed via removal in January, 1995. Soil sampling performed in accordance with this closure found no evidence of fuel oil contamination according to OMNOVA. Additional details are provided in the *Storage Tanks* and *Investigations and Remedial Actions* sections.

AOC 3 - MEK UST (Tank 09)

Historically, MEK was stored in a single 10,500-gallon UST (Tank 09) located near the east end of Building 13. The tank was emptied and cleaned in August 1987. Subsequent to cleaning, it was hydrostatically tested in September 1987 and found to have good integrity. Records are incomplete, but it appears that the tank was removed shortly after the successful hydrostatic test. Additional details are provided in the *Storage Tanks* and *Investigations and Remedial Actions* sections.

AOC 4 -Auxiliary Linear Phthalate Tanks (Tanks 12 and 13)

In addition to the main tank farm (Tanks 01 through 08), there were two additional USTs (Tanks 12 and 13) used to store phthalates located between Buildings 17 and 23. Although in-house records are incomplete, there is documentation indicating that these tanks were removed in March, 1990 in accordance with PADEP requirements. Additional details are provided in the *Storage Tanks* and *Investigations and Remedial Actions* sections.

AOC 5 - 400,000-Gallon Fuel Oil AST

This tank served as the back-up fuel source for the Power House prior to 1989. Prior to this date, the tank was decommissioned which involved removal of all pumpable fuel oil and disconnection of all piping to and from the tank. This AST remained empty until 2007 when it was dismantled and removed from the property. Additional details concerning the tank closure are discussed in the *Storage Tanks* and *Investigations and Remedial Actions* sections.

AOC 6 – 750-Gallon Gasoline UST

The 750-gallon gasoline UST was closed around 1980 in accordance with regulations at the time according to OMNOVA. Additional details concerning the tank closure are discussed in the *Investigations and Remedial Actions* section.

Storage Tanks

The following table contains a summary of the tanks, their capacities, contents, and closure status:

TANK REG NO. Underground Stor	SIZE (gallons)	CONTENTS	INSTALLATION YEAR	STATUS	AREA OF CONCERN
01	8,000	Adipic Ester	1970	Removed	AOC 1
	0,000	-	1770	1992	7100 1
02	8,000	Linear Phthalate	1970	Removed 1991	AOC 1
03	8,000	epoxidized soybean oil	1970	Removed 1991	AOC 1
04	8,000	Mixed Adipate Ester	1970	Removed 1991	AOC 1
05	8,000	Mixed Adipate Ester	1970	Removed 1991	AOC 1
06	8,000	Unspecified	1970	Removed 1991	AOC 1
07	8,000	Mixed Phosphate Ester	1970	Removed 1991	AOC 1
08	24,000	Di-iso Decyl Phthalate	1970	Removed 1991	AOC 1
09	10,500	2-butanone	1976 or earlier	Removed 1989	AOC3

TANK REG NO.	SIZE (gallons)	CONTENTS	INSTALLATION YEAR	STATUS	AREA OF CONCERN			
10	30,000	No. 6 Fuel Oil	1968	Removed 1995	AOC 2			
11	30,000	No. 6 Fuel Oil	1968	Removed 1995	AOC 2			
12	12,000	Unspecified	1964	Removed 1990	AOC 4			
13	18,000	Linear Phthalate	1973	Removed 1990	AOC 4			
N/A	750	Gasoline	Unknown	Removed 1980	AOC 6			
Aboveground Storage Tanks								
A	10,000	Unspecified*	1991	Active	N/A			
В	10,000	Adipic polyester*	1991	Active	N/A			
С	10,000	Unspecified*	1991	Active	N/A			
D	10,000	Unspecified*	1991	Active	N/A			
Е	10,000	Unspecified*	1991	Active	N/A			
F	10,000	Unspecified*	1991	Active	N/A			
G	10,000	Unspecified*	1991	Active	N/A			
Н	10,000	Unspecified*	1991	Active	N/A			
I	20,000	Unspecified*	1991	Active	N/A			
Not Specified	400,000	Fuel Oil	Unknown	Removed 2007	AOC 5			

^{*}Specified as plasticizer mixed with an antifungal (arsenical) biocide in 2009

The USTs were identified as AOCs by the facility's consultant (SE Technologies) during the EI site visit in 2009:

- Plasticizer UST Tank Farm (USTs 01 through 08 addressed previously) (AOC 1)
- Fuel Oil USTs (USTs 10 and 11 addressed previously) (AOC 2)
- MEK UST (UST 09) (AOC 3)
- Auxiliary Linear Phthalate Tanks (USTs 12 and 13 addressed previously) (AOC 4)
- 400,000-gallon Fuel Oil AST (addressed previously) (AOC 5)
- Gasoline UST (AOC 6)

Seven of the industrial chemical USTs (Tanks 01 through 07 – AOC1) at this UST farm were of 8,000-gallon capacity each and were installed in 1970. One 24,000-gallon industrial chemical UST (Tank 08 – AOC1) present at this UST farm was also installed in 1970. The two 30,000-

gallon fuel oil USTs (Tanks 10 and 11) present at the UST farm were installed in 1968. Two other industrial chemical USTs of 12,000-gallon capacity (Tank 12) and an 18,000-gallon capacity (Tank 13) were installed in 1964 and 1973, respectively.

On June 22, 1989, the facility informed PADEP of the ongoing removal of a 10,500-gallon UST (Tank 09) that contained 2-butanone (AOC 3). This UST was at least 13 years of age at that time. The approximate location is illustrated in Appendix B: Figure 2 - Facility Layout. Excavation was in progress at the time of the notification. Additional details concerning closure are provided in *Investigations and Remedial Actions* (UST and AST Closures).

On September 13, 1989, the facility informed PADEP that in order to comply with USEPA regulations 40 CFR 280 and 281, the use of USTs for storage of process chemicals would be eliminated. A containment structure for ASTs was planned.

On November 15, 1989 the facility supplied an updated registration/inventory of USTs showing the presence of 12 USTs, which consisted of 10 USTs that contained industrial chemicals and two USTs that contained fuel oil. The USTs 12, and 13 had not been in use since January 1989 and the November 15, 1989 letter notified PADEP of the facility's intention to remove these two USTs.

PADEP was informed on April 16, 1990 that two industrial chemical USTs (Tanks 12 and 13) had been removed (AOC 4). PADEP replied on June 29, 1990 with guidance regarding UST closure site assessment and remediation. The letter stated that the PADEP's policy is to clean to background where technologically possible or feasible. The letter also required the registration for storage tanks that were in place after November 5, 1989. Records indicate that testing of the tanks at the time of removal found them to be of good integrity according to OMNOVA (2009). Additional details concerning closure are provided in *Investigations and Remedial Actions* (UST and AST Closures).

On August 14, 1991, the facility registered eight ASTs of 10,000-gallon capacity each, and one AST of 20,000-gallon capacity. The ASTs were to contain industrial chemicals to replace the function of the UST tank farm that was in the process of being removed. PADEP's website indicates that nine tanks registered on October 1, 1999 are currently in use.

On January 10, 1992, PADEP visited the UST farm site (AOC 1) described previously. The excavated USTs had contained industrial chemicals of various classes of compounds such as polyesters, phthalates, epoxides, dicarboxylic acids and esters, and organic phosphate compounds. The USTs were excavated and soils stockpiled near the excavation. No visual or olfactory evidence of contamination was noted. However, the data from the laboratory showed high concentrations of the chemicals associated with these USTs in the soil samples. As discussed in *Investigations and Remedial Actions*, TPH concentrations exceeded 9,000 mg/kg and excavation was expanded towards the east, west, and south until TPH concentrations were less than 50 mg/kg of TPH and further excavation towards the north was not possible because of the presence of two 30,000-gallon fuel oil USTs (AOC 2). The TPH concentrations at the bottom of the excavation near the remaining USTs were 200 mg/kg and 270 mg/kg.

On May 18, 1992, the facility replied to a letter dated March 5, 1992 from PADEP regarding the permanent closure of the UST farm (AOC 1). Seven USTs of 8,000-gallon capacity and one UST of 24,000-gallon capacity were reportedly removed with the associated contaminated soil from AOC 1. Clean soil from a site that the facility had previously identified was used as backfill.

On September 23, 1992, a PADEP site visit reported the facility planned to remove contaminated soil (exceeding 100 mg/kg of TPH) that remained from the previous UST closures when the remaining 30,000-gallon fuel oil USTs (Tanks 10 and 11) are removed (i.e., AOC 2). All of the contaminated soil from the previous UST removal excavation was reported to have been disposed of at Kelly Run landfill. The facility would contact PADEP when the 30,000-gallon fuel oil USTs were intended to be removed.

On January 24, 1995, two 30,000-gallon USTs (Tanks 10 and 11 – AOC 2) that contained No. 6 fuel oil were removed. The USTs were inspected and found to have some evidence of corrosion pits. Ten confirmatory soil samples were collected. Additional details concerning closure are provided in *Investigations and Remedial Actions* (UST and AST Closures).

A 400,000-gallon AST (AOC 5) used for storing fuel oil for the old power facility was slated for removal, as noted during an inspection of the facility on October 18, 2006. This AST was removed in 2007 according to the facility (OMNOVA, October 2009). No indications of a release were observed during the removal and therefore, no confirmatory soil or groundwater samples were collected.

Investigations and Remedial Actions

Remedial actions found in the regulatory records conducted to date included: the spill incident and immediate removal of contaminated soil, and removal of contaminated soil during UST closure activities. During the site visit in 2009, the facility stated that no monitoring wells are present.

50 Gallon Spill - Ink/Solvent/Additive Mixture, May 1994

On May 19, 1994, a Spill Incident Report from the facility described the release of approximately 50 gallons of an ink mixture containing pigment, solvent, and other additives on to a paved area, with some overflow on an adjacent grass facility. The liquid was recovered and the affected soil was removed and containerized in seven drums. The facility reinforced the correct pallet trucking practice and reviewed possible additional training for drum transportation safety for facility personnel. The location of the spill is unknown and there is no documentation that confirmation soil samples were collected to verify that the spill was fully cleaned up.

UST and AST Closures

The facility notified PADEP of their intent to eliminate the use of USTs in September 1989. In 1989, 12 USTs were present at the facility and consisted of ten USTs that contained industrial chemicals (Tanks 01 to 09 and 13), and two USTs (Tanks 10 and 11 – AOC 2) that contained fuel oil as described in *Storage Tanks*. On August 14, 1991, the facility registered a new AST system and informed PADEP that they would removed the USTs. During a PADEP site visit on January 10, 1992, the USTs were in the process of being removed.

AOC 1 - Plasticizer UST Tank Farm (Tanks 01 through 08)

The PADEP report noted that industrial chemicals of various classes of compounds such as polyesters, phthalates, epoxides, dicarboxylic acids and esters, and organic phosphate compounds were stored in these USTs. The USTs were excavated and soils were stockpiled near the excavation. No visual or olfactory evidence of contamination was noted. However, the data from the laboratory identified high concentrations of the chemicals associated with these tanks in the soil samples collected from the bottom of the excavation. Soil samples collected from the bottom of the excavations of eight USTs were analyzed for total petroleum hydrocarbons (TPH) using USEPA Method 418.1 and a modified USEPA Method 418.1. Results indicated the presence of up to 9,000 mg/kg of TPH and 37,000 mg/kg of "special hydrocarbons" using the modified

method. Soil was excavated until testing indicated that the remaining soil contained less than 50 mg/kg of TPH.

On March 5, 1992, PADEP sent a letter summarizing the results of a meeting at the facility on January 10, 1992 when the facility had contended that the soil posed no threat to human health, safety or the environment and no further remediation was being proposed. PADEP requested a written proposal to justify the contention. On May 18, 1992, the facility replied to the letter from PADEP and provided information to support the permanent closure of the UST farm. Because of the high concentrations of TPH that were encountered, the excavation was expanded until acceptable TPH concentrations were achieved or excavation was no longer practicable. The excavation was expanded northward until two existing 30,000-gallon fuel oil USTs situated adjacent to and parallel to a powerhouse foundation was encountered. Concentrations of TPH in the soil at the northern extent of excavation were 200 mg/kg and 270 mg/kg. The excavation was expanded toward the east until the foundation of the existing resin storage silos was encountered, where a TPH concentration of less than 50 mg/kg was encountered. The excavation was terminated toward the south and west when TPH concentrations of less than 50 mg/kg were encountered. Clean soil from a site that the facility had previously identified was reportedly used as backfill. The soil contained less than 50 mg/kg of TPH according to the analysis supplied by the facility.

On February 21, 1992, the facility's manifest indicated that non-hazardous ester contaminated soil was generated for disposal at Kelly Run Sanitation location at Elizabeth, Pennsylvania. A letter from the facility to Kelly Run Sanitation indicated that the original estimate of 500 tons of soil was exceeded by 500 tons, and the reason for the doubling in quantity was due to additional contaminated soil during excavation.

AOC 2 - Fuel Oil USTs (Tanks 10 and 11)

On January 24, 1995, two 30,000-gallon USTs (Tanks 10 and 11) that contained No. 6 fuel oil were removed (AOC 2). The USTs were inspected and found to have some evidence of corrosion pits. Eight confirmatory samples were collected from under the tanks and two were collected from the stockpiles and sent to a fixed-base laboratory for analysis of diesel-range of total recoverable petroleum hydrocarbons (TRPH), benzene, toluene, ethylbenzene, xylenes (BTEX), and lead. The piping was located above the tanks so no samples were collected for them. Based on the closure report all confirmatory samples were within regulatory limits at the time of

sampling; however, the actual data and specific regulatory limits were not provided in the closure report. The contaminated soil that remained from the previous UST removal is presumed to have been removed with these USTs. According to OMNOVA, confirmation samples collected from the excavation walls and floor ranged between 82 mg/kg and 170 mg/kg TPH. This was reportedly within acceptable limits under PADEP's fuel oil UST closure program at that time and the excavation was subsequently backfilled with clean fill. No water was observed in the excavation pit.

AOC 3 - MEK UST (Tank 09)

On June 22, 1989, the facility informed PADEP of the ongoing removal of one 10,500-gallon UST that contained 2-butanone (i.e., Tank 09, AOC 3). On August 23, 1989, the facility supplied the analysis of soil samples from the top and bottom of the excavation with TPH, lead, benzene, toluene and xylenes results. Samples of soil from the top and bottom of the excavation were collected and analyzed for TPH (330 to <50 mg/kg), lead (11 to < 10 mg/kg), benzene (<0.5 mg/kg), toluene (0.6 to <0.5 mg/kg), and xylenes (<0.5 mg/kg). No further documentation regarding the location of this UST or PADEP's approval of its closure was found in the regulatory files. (Note: No samples were analyzed for 2-butanone, which was the chemical stored in the tank; however, the selected analyses were communicated to PADEP during the removal of the UST.)

AOC 4 - Auxiliary Linear Phthalate Tanks (Tank 12 and 13)

USTs (Tanks 12 and 13) were closed in 1990 (AOC 4). Records indicate that testing of the tanks at the time of removal found them to be of good integrity according to OMNOVA (2009). Upon completion of testing, they were removed and disposed off-site. Given the positive results of the tank testing, and the absence of other evidence of leakage, no soil or groundwater sampling took place with this tank removal. However, prior to removal, two samples of soil were collected overlying Tanks 12 and 13 and the analysis for TPH yielded 2,300 and 3,300 mg/kg. There is no other available sample data for these tanks.

AOC 5 - 400,000-Gallon Fuel Oil AST

The 400,000-gallon fuel AST remained empty until 2007 when it was dismantled and removed from the property. As there was no secondary containment, extensive inspection of the tank floor and underlying sand pad was made during the removal process and the results documented in a closure report completed by an independent consulting firm. At the onset of the removal of the

tank, the floor was steam cleaned to allow careful inspection of its integrity. No areas of potential leaks were observed (e.g. cracks and or corrosion). As the floor was removed, the underlying sand pad was also inspected for signs of release. None was observed. Consequently, no confirmation soil or groundwater samples were collected during closure of this AOC.

AOC 6 - Gasoline UST

A 750-gallon gasoline UST was closed around 1980, utilizing applicable regulations in effect at that time. This simply involved removed of all pumpable fuel and backfilling the tank with sand. In 2000, the facility voluntarily removed the tank. As no piping was observed during this removal, it is assumed that it had been removed at the time of the original closure. "Low concentrations of indicator organics were detected" in soils excavated during the tank removal. However, no lead was detected. As the detected constituents were highly amenable to biodegradation, the excavated soils were staged on plastic and "allowed to proceed through natural attenuation via biodegradation".

Soil samples collected at the time of the tank removal indicated the presence of unleaded gasoline. Seven soil samples collected subsequent to remediation reportedly contained PADEP's unleaded-gasoline parameters below detection limits, with the exception of one sample which contained benzene at 0.064 mg/kg according to OMNOVA. Four of the samples were reportedly collected from borings "down gradient" of the excavation pit. The remaining three samples were collected from the excavation pit itself and did not detect any gasoline constituents according to OMNOVA. The remediation report is not currently on-file with USEPA or PADEP.

Inspections

Waste

An inspection report dated July 18, 1972 by a Westmoreland County employee noted the following: several tons of metal, paper, cardboard, plastic, wood, cloth, rubber wastes were generated per month, and several thousand gallons of waste oil, solvents and inks were generated per month. The report also included the names of scrap dealers who recycled the metal, the facility to which ink was shipped by rail in 55-gallon drums, and the disposal facility that collected the oil and solvents for use as a dust-reducing agent on roads and parking lots.

On September 18, 1981, a hazardous waste inspection noted the lack of a contingency plan. The Spill Prevention Control and Countermeasure (SPCC) plan was being revised to cover RCRA requirements. The facility had filed as a TSD and transporter; however, neither activity was being carried out. A notification to be removed from the TSD list was recommended.

On October 15, 1982, a hazardous waste inspection resulted in a NOV as discussed previously under *Permit and Regulatory Action History*.

On January 19, 1983, PADEP personnel observed a PCB decontamination process ("PCBX" of Sun Ohio, Inc.) being tested on heat transfer fluid of the calendar rolls. PADEP followed up with a letter to USEPA asking for information on the successful use of this process.

On February 11, 1983, a RCRA compliance inspection was conducted, which was followed up with a letter notifying the facility of certain violations, as discussed previously under *Permit and Regulatory Action History*.

On November 23, 1983, the hazardous waste inspection report noted that the PPC plan had not been revised.

On July 20, 1984, the hazardous waste inspection report noted that a notification of name change was not submitted and inspections of the drum storage area were not documented on weekly inspection logs.

On July 23, 1986, the hazardous waste inspection report noted that manifests were not properly completed.

On August 13, 1987, a hazardous waste inspection noted that the improper manifests that were used from 1982 to 1986 were corrected. The PPC plan appeared to be complete.

On August 31, 1988, hazardous waste inspection resulted in a NOV discussed previously under *Permit and Regulatory Action History*.

On November 7, 1989, a hazardous waste inspection report (based on inspection dates of October 23, and October 25, 1989) contained 42 observations and the following violations: one 55-gallon

drum marked "VPC topcoat" contained a solvent-like material which was not characterized and the drum was not properly labeled; the hazardous waste containment did not have a sump or spill collection system, and the volume of the containment was not known; the PPC plan prepared in January 1987 and revised in May 1989 was noted to contain eleven deficiencies; and the inclusion of a small portion of spent toluene in the VPC topcoat (which was labeled as D001) rendered it to be an F005 waste. Because several shipments were made to the incinerator TSD (Ensco, Eldorado, Arkansas) with the incorrectly-labeled manifest, it constituted a violation of land disposal restrictions (LDR) notification.

On October 28, 1991, a hazardous waste inspection report (based on a September 26, 1991 inspection) contained 44 observations and the following violations: one drum of scrap pigment (D007 and D008) was labeled as "nonhazardous"; a shipment of F005 waste with manifest date September 19,1990 did not carry the D006, D007, and D008 waste codes which were identified in the LDR notification; shipments on September 19, 1990 and December 21, 1990 carrying D006 wastes lacked an LDR notification; the second quarterly report for 1990 was missing a manifest for the shipment of D001 waste; and the PPC plan contained several deficiencies.

On December 8, 1992, a hazardous waste inspection report (based on a September 21, 1992 inspection) contained 33 observations and noted one violation regarding the PPC plan.

On January 25, 1995, a hazardous waste inspection report (based on a November 29, 1994 inspection) contained 69 observations and noted the following violations: liquid MEK and solvent rags were being disposed of with general facility trash; a December 8, 1993 manifest for 27 drums of F005 and K086 wastes was not returned within the expected 7-day duration following the arrival date; and finally, the afore-mentioned incident had not been investigated, nor had an appropriate exception report been submitted. (The inspection report noted that LDR notifications were properly completed and the PPC plan was updated.)

On February 27, 1995, a hazardous waste inspection report from that day noted a violation regarding a manifest (dated January 30, 1995) not being returned within the 14-day arrival date.

On March 9 and 16, 2006, residual waste and generator inspections were conducted. The reports noted that the facility did not have a source reduction strategy (SRS) in place for each waste stream using Form 25-R. It was required that this violation be addressed within 60 days.

On July 13, 2006, a residual waste generator inspection report noted that the missing SRS violations noted in the March 14, 2006 and June 14, 2006 complete for most waste stream except for oil contaminated rags and absorbents, R-503.

A follow-up inspection on August 16, 2006 recommended some minor modifications for SRS on R-409 (halogenated plastics) and R-509 (waste oil). Otherwise, the previous violations were corrected.

On October 19, 2006, a residual waste generator inspection noted no violations. The inspection noted that the SRS for R-409 and R-509 were properly completed.

No hazardous waste inspections were conducted after 2007.

Air

Air inspections in general (from 2000 until the most recent in 2008) did not reveal any opacity or fugitive odors/emissions problems. Air inspections were conducted on the following dates:
January 11, 2000; January 19, 2001; March 22, 2001; January 3, 2002; January 6, 2003; January 26, 2004; March 18, 2005; October 19, 2005; October 18, 2006; November 14, 2007; and June 4, 2008. On January 26, 2004 an annual full compliance inspection was conducted and the facility was found to be in compliance with all Title V permit requirements.

On March 18, 2005, and October 19, 2005, inspections of the facility revealed no violations. On August 24, 2006, the facility's Annual Compliance Certification for the period from July 26, 2005 through July 26, 2006 was reviewed and no deviations were noted. On October 18, 2006, an inspection of all of the sources addressed in the recently renewed Title V permit was performed. No violations were noted. A large scale renovation project involving the demolishing of the old boiler house; decommissioning of six old transformers followed by the replacement with two new transformers; demolishing of seven old silos and replacement with four new silos and two refurbished silos, was noted.

On November 14, 2007, a full compliance inspection was performed. The facility was deemed to be in compliance. A file review by the inspector showed that a Title V Compliance Certification for the period ending July 2007 had not been received, which resulted in the NOV discussed previously under *Permit and Regulatory Action History*.

On June 4, 2008, the inspector could not locate the semi-annual monitoring report for July 27, 2007 through January 26, 2008 and notified the facility's manager responsible for this function regarding the requirement. The inspector was informed of a change in the facility manager, of which PADEP had not been notified.

On August 11, 2008, the inspection report noted the late submission of a compliance certification report and the failure to submit the semi-annual monitoring report in June 2008.

Water

Industrial discharge inspections were conducted in 1968, 1969, 1971, 1978, 1980, 1984, 1987, 1988 and no visual indications of problems were noted. Samples were collected for analysis, and it appears that no letters of violation were issued following the receipt of results.

NPDES compliance inspections were conducted on the following dates: January 24, 1989; September 19, 1989; April 29, 1993; February 28, 1994; November 9, 1994; March 4, 1997; May 30, 2000; September 26, 2001; September 4, 2003; February 28, 2005; and June 29, 2006. Corrective measures to address violations and excursions beyond the permit limits were noted on an ongoing basis during these inspections. According to the facility, no NPDES inspections were conducted after 2006.

On January 24, 1989, the inspection report noted a breach that allowed oil to enter the treated effluent, and the need for an oil/water separator repair.

On September 19, 1989, the inspection report noted the oil/water separator was operating properly. The outfall pipeline was broken and was planned to be repaired. The chlorine content in the effluent was found to be higher than the tap water. A previously unpermitted outfall was discovered. In a subsequent inspection, Outfall 002 (which was previously terminated) was found to be active. Samples were collected on September 27, 1989 to identify the sources of water in the two outfalls.

On April 23, 1993, the inspection report noted no violations. A review of the DMRs for the year noted no violations. Samples were monitored at the water inlet and at two effluent locations for free-, and total- chlorine concentrations. A sample from Outfall 001 was collected for analysis.

On February 28, 1994 the inspection report noted a violation of the oil and grease limit from an Outfall 001 grab sample. The oil and grease concentration was 52 mg/L, which exceeded the limit of 30 mg/L.

On November 4, 1994, the inspection report noted that a new skimmer-type oil/water separator was in operation and it would be replacing the old impoundment-type system. A sample was collected from its outfall for analysis.

On March 4, 1997, a DMR review for 1996 showed that during the past year, only a pH violation had occurred in December 1996. No problems were noted during visual inspection. Samples were collected for analysis from Outfall 001, and from a contact cooling-water outfall associated with the pan overflow of one of the calendar lines.

On May 30, 2000, a DMR review for 1999 showed one violation of the oil and grease limit. The facility took measures to address the cadmium and temperature violations. A toxicity reduction evaluation for cadmium resulted in a decision to discharge the wastewater to the City of Jeannette Municipal Authority without pretreatment. Insulation and cooling fans were proposed to be installed in June to address the temperature violation. No samples were collected.

On September 26, 2001, a DMR review for the period since the last inspection revealed that permit limits were exceeded for temperature in July, cadmium concentrations in February and March, and BOD (5-day) in August. The inspection report also noted that the facility took corrective actions to address the cadmium and BOD (5-day) violations. The temperature violation occurred only in July and apparently, the control measures were not successful; therefore, the facility was considering a revision to the new permit for a limit based on temperature rise rather than an upper limit of 77 °F.

On September 4, 2003, a visual inspection noted no problems. No samples were collected.

On February 28, 2005, a review of DMRs for the calendar year 2004 did not show any permit limit violations except for a temperature spike in July. A light sheen was observed from Outfall 003. A sample was collected for analysis. No follow-up documentation was found during the file review.

On June 29, 2006, a visual inspection noted no problems. No samples were collected.

C. Description of Exposure Pathways for all Releases or Potential Releases

<u>Air</u>: The facility operates under a Title V air operating permit. No air emissions concerns other than administrative issues were determined in the regulatory review. The population of the nearby city of Jeannette, Pennsylvania was estimated to be approximately 9,851 in 2009 according to the U.S. Census Bureau.

Groundwater: The regional geology and hydrogeology is described in the PA (NUS, 1991). The uppermost Quaternary age alluvial deposits consisting of clay, silt, sand, gravel, and boulders are not a significant water-bearing group. The underlying Conemaugh Group (consisting of limestone, shale, sandstone, and coal), carries the water-bearing zone within the void spaces between the sand grains and fractures of the sandstones and the bedding and joint planes of the shale and limestone. Groundwater is expected to occur under water-table and artesian conditions. Based on the topography of the area and the elevation of Brush Creek, it is estimated that the uppermost aquifer would be encountered at a depth of about 15 to 20 feet below the ground surface. Groundwater was not encountered during the UST removals that were conducted at the facility. According to the PA, sufficient water for domestic purposes can be obtained from the Conemaugh Group from wells drilled to a depth of 100 to 150 feet below the water table.

The area is served by a public water supply company and private water supply wells. The Municipal Authority of Westmoreland County supplies treated water to the area and adjacent towns from two filtration plants and a treatment plant that draw water from the Youghiogheny River and Beaver Run Reservoir. The nearest domestic well was reported by the PA (1991) to be approximately 3,000 feet west of the facility. Approximately 7,700 persons within a 3 to 4 mile radius around the facility were reported to be using groundwater as a source of private water supply. The facility uses public water supplied by the City of Jeannette. Pennsylvania Groundwater Inventory System (PaGWIS) provided the following information regarding groundwater wells located within a 0.5-mile radius surrounding the facility: three industrial wells at depths ranging from 250 to 404 feet installed between 1924 and 1933 within the facility; toward the southeast, a domestic well, 200 feet deep, was installed in 2006; and toward the southeast a domestic well, 110 feet deep was installed in 2006. (The facility reported during the

site visit that they had no knowledge of any production wells on the facility. Therefore, it is assumed that the wells listed above are no longer active.)

<u>Surface Water:</u> Brush Creek traverses the facility in the northern portion of the property. Brush Creek is a perennial stream that discharges into the Monongahela River, approximately 15 stream miles west of the property. Based on the topography, surface drainage from building roof tops, paved areas, etc., of the facility is expected to discharge to Brush Creek.

<u>Soil</u>: The surface soil is described as Ernest silt loam, deep, moderately well-drained, medium-textured, smooth, generally concave slopes where colluvial material that has accumulated along drainageways and streams to form benches and fans. These soils are developed in material derived from acid shale, siltstone, and sandstone. The subsoil is a silt loam to a clay loam with coarse fragments. The depth to bedrock is expected to be greater than six feet bgs. Outside of the built areas, the ground is paved, gravel-covered, grass-covered, or vegetated.

D. Exposure Pathway Controls and/or Release Controls Instituted at the Facility

Air: USEPA has requested that the vapor intrusion pathway be evaluated as part of the EI process. The USEPA 2002 OSWER Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (Subsurface Vapor Intrusion Guidance) provides a methodology for vapor intrusion evaluation under current land use conditions using available site data. It should be noted that the USEPA 2002 guidance is not generally recommended for use in evaluating settings that are primarily occupational. However, the PADEP Act 2 vapor intrusion guidance (specifically, Land Recycling Program Technical Guidance Manual – Section IV.A.4, Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard) can be applied to both residential and nonresidential receptors. This guidance provides decision matrices for soil and groundwater (under a Statewide health or generic approach) for determining if indoor air quality is a concern. Therefore, the Land Recycling Program Technical Guidance Manual was used, as appropriate, to evaluate a potential vapor intrusion pathway in this EI Report.

As previously noted, various chemical releases, primarily associated with former USTs, have been documented at the facility. According to available information, all USTs were removed. Releases of

phthalate contamination to surface soil were remediated with no other known releases to surface soil. Phthalates are not identified as chemicals of potential indoor air concern (COPIACs) by PADEP. The subsurface releases of TPH were remediated with low level concentrations of TPH remaining in the soil. Currently, there are no PADEP screening criteria with which to evaluate vapor intrusion of TPH into buildings. However, OMNOVA acknowledged that residual subsurface soil TPH contamination associated with the AOCs 1 and 2 remains at the facility and stated future disposition of any excavated soil within this area must be approved by PADEP.

Releases of VOCs to the subsurface soil were excavated and remediated at the former Gasoline UST (AOC 6) location, believed to have been in front of Building 17. Seven soil samples were collected and analyzed for PADEP's unleaded gasoline parameters subsequent to the remediation. Analytical results from these soil samples were reported to be below detection limits with the exception of one sample that contained benzene at a concentration of 0.064 mg/kg. Available documentation indicates that the benzene concentration was left in place. Available records do not indicate the depth of the soil samples collected, which precludes the use of the USEPA-PA Default Nonresidential Volatilization to Indoor Air Screen criteria (2004) for evaluation purposes. However, it is important to note that the benzene concentration is well below the PADEP soil to groundwater, used aquifer, non-residential medium-specific concentrations (MSC) (5 mg/kg) and the most conservative PADEP direct contact non-residential MSC (0-2 feet) (210 mg/kg).

Based on documented historical remediation efforts at the facility, removal of all USTs, and the fact that the benzene concentration that appeared to be left in place was very low, it is not expected that vapor intrusion attributable to subsurface contamination at this facility is a potential concern assuming a nonresidential scenario.

<u>Groundwater</u>: Groundwater was not encountered during previous investigations or UST removals conducted at the facility. It is not likely that subsurface releases reached the groundwater. Human exposure pathway controls for groundwater are not relevant.

<u>Surface Water:</u> Currently, the facility discharges contact-cooling industrial wastewater to Brush Creek under an NPDES permit to Outfall 001 and non-contact cooling industrial wastewater to Outfall 003. Wastewater undergoes pretreatment via oil/water separation only from the contact-cooling wastewater prior to being discharged to Outfall 001. The facility has violated permit limits in the past for oil and grease, cadmium, BOD, and temperature. Corrective actions were taken. The

most recent inspections in 2006 did not note any problems. Recent floods of Brush Creek reportedly did not cause any releases to the surrounding environment. Human exposure pathway controls are not relevant.

<u>Soil</u>: A spill of an ink/solvent/additive mixture occurred in May 1994 at an unspecified location in the facility. The spill was cleaned up; however, confirmation samples are not available to verify the cleanup.

Any releases from SWMUs 1 through 7, and 9 through 13 would not be expected to impact site soils due to the presence of concrete. SWMU 8 reportedly impacted site soils with waste oil which were cleaned up prior to closure of the unit. However, confirmation samples were not collected to verify prior to construction of a concrete pad and electrical substation at the same location.

Subsurface releases within the Plasticizer UST Tank Farm (Tanks 01 to 08 - AOC 1) were remediated and concentrations of phthalates and esters remained in the range of 200 to 270 mg/kg as measured as TPH. Testing for chemical specific semi-volatile organic compounds was not completed; therefore, phthalates and esters may still be present in subsurface soils.

Subsurface releases within the Fuel Oil UST Tank Farm (Tanks 10 and 11 - AOC 2) were remediated and concentrations of TPH remained in the range of 82 to 170 mg/kg of TPH. The excavation and backfilling was conducted in coordination with PADEP in 1995. Analyzing for BTEX were reportedly completed at the time of closure. However, analyses for semi-volatile organic compounds were not completed and some hydrocarbons may still be present in subsurface soils.

Subsurface soil conditions associated with the former MEK UST (Tank 09) AOC 3 that was removed in 1989 is not well documented. Two samples were collected for petroleum constituents, but no samples were collected for MEK (i.e., 2-butanone); therefore, it is unknown if soils are contaminated with the product that was stored in the tank.

Releases of phthalate contamination to surface soil at the Auxiliary Linear Phthalate Tanks (12 and 13) located at AOC 4 at the facility were removed with the USTs in 1990. Elevated concentrations of TPH were recorded for surface soils associated with these tanks. There is no documentation that specifies that the soils with elevated concentrations of TPH were removed from the site and no

analytical testing results for phthalates; therefore, it is unknown if soil contamination associated with these tanks remains on-site.

No releases were documented or observed during closure of the 400,000-gallon Fuel Oil AST (AOC 5); therefore, OMNOVA did not confirm that the area was clean through sampling.

Releases of VOCs to the subsurface were excavated and remediated at the Gasoline UST (AOC 6) location with the exception of one sample which contained benzene at a concentration of 0.064 mg/kg, which is less than the direct contact residential MSC for surface soils and the residential soil to groundwater MSC. While this area is reported to have been remediated, the documentation related to the remediation is not currently on-file with PADEP or USEPA.

Releases to soil have been remediated; however, some confirmation sampling was limited or absent. Therefore, it is unknown whether exposure controls are relevant for subsurface soil for this facility. Access to the facility is restricted by a chain-link fence topped by a 3-strand barbed wire fence and security gates at two entrances. Stream banks along Brush Creek are steep and further discourage trespassing.

E. Follow-up Action Items

USEPA Region III will decide if additional information or sampling at the facility is required to determine whether or not the EIs have been met or if corrective action is required for the facility.

APPENDIX A

Photographs

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

1

VIEW **North**

PHOTOGRAPHS BY

Baker



Comments: Facility entrance on Lewis Avenue.

PHOTOGRAPH

2

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: Waste oils (associated with Production Lines 1 and 2) stored in drums at SWMU 1.

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

3

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: Waste oils (associated with Production Line 4) stored at SWMU 2.

PHOTOGRAPH

4

VIEW Inside

PHOTOGRAPHS BY

Baker



Comments: SWMU 3 no longer stores waste oil from Production Line 4.

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

5

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: One of the "Banbury" mixers on the first floor showing oil dripping and collection buckets.

PHOTOGRAPH

6

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: Waste oil drums collecting leaking heating oil from Calendar Line 4.

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

7

VIEW Inside

PHOTOGRAPHS BY

Omnova



Comments: Closeup of Banbury Mixer weep lubricating oil collection point.

PHOTOGRAPH

8

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: Closeup of leaking heating oil collection points behind Calendar Line 4.

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

9

VIEW Inside

PHOTOGRAPHS BY

Baker



Comments: Former SWMU 4 (East Ink Room), currently a maintenance/welding room.

PHOTOGRAPH

10

VIEW Inside

PHOTOGRAPHS BY

Baker



Comments: Former SWMU 5 (West Ink Room) currently a file room on the first floor.

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

11

VIEW **West**

PHOTOGRAPHS BY

Baker



Comments: Hazardous Waste Storage Building (SWMU 6, Building 13), former MEK UST area in foreground grass-covered area.

PHOTOGRAPH

12

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: General view of hazardous waste drums stored inside SWMU 6.

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

13

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: Floor drain inlet inside SWMU 6 plugged (typical).

PHOTOGRAPH

14

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: Floor drain pipe to 55-gallon drum (highlight added) inside basement of SWMU 6.

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

15

VIEW Inside

PHOTOGRAPHS BY

Baker



Comments: SWMU 7 (Building 28) (Former Waste MEK Drummed Waste Area).

PHOTOGRAPH

16

VIEW **East**

PHOTOGRAPHS BY

Baker



Comments: Main electrical substation, location of former Oil Separation Reservoir (SWMU 8).

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

17

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: Active Laboratory Satellite Accumulation Area within Building 28.

PHOTOGRAPH

18

VIEW **East**

PHOTOGRAPHS BY

Baker



Comments: Former Plasticizer and Fuel Oil UST Farm (USTs 1-8, 10 and 11) (AOC 1 and 2) area.

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

19

VIEW **South**

PHOTOGRAPHS BY

Baker



Comments: Former MEK UST (AOC 3) location.

PHOTOGRAPH

20

VIEW West

PHOTOGRAPHS BY

Baker



Comments: Former Auxiliary Plasticizer USTs 12 and 13 (AOC 4) area.

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

21

VIEW **North**

PHOTOGRAPHS BY

Baker



Comments: Former 400,000-gallon Fuel Oil AST (AOC 5) area, location of upstream debris from recent floods.

PHOTOGRAPH

22

VIEW South

PHOTOGRAPHS BY

Baker



Comments: Possible vicinity of former Gasoline UST (AOC 6) in the front of Building 17.

MICHAEL BAKER JR., INC. - PHOTOGRAPHIC RECORD

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

23

VIEW South

PHOTOGRAPHS BY

Baker



Comments: Approach towards Building 28 showing topography (three or more levels of terracing) towards the south of facility.

PHOTOGRAPH

24

VIEW **North**

PHOTOGRAPHS BY

Baker



Comments: Former UST Farm Area showing topography (two levels) towards North (Brush Creek).

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

25

VIEW **South**

PHOTOGRAPHS BY

Baker



Comments: WWT Plant showing skimmers, oil collection buckets in foreground.

PHOTOGRAPH

26

VIEW **South**

PHOTOGRAPHS BY

Baker



Comments: Outfall 001 from Chambers Avenue.

MICHAEL BAKER JR., INC. – PHOTOGRAPHIC RECORD

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

27

VIEW **South**

PHOTOGRAPHS BY

Baker



Comments: Outfall 003 from Chambers Avenue.

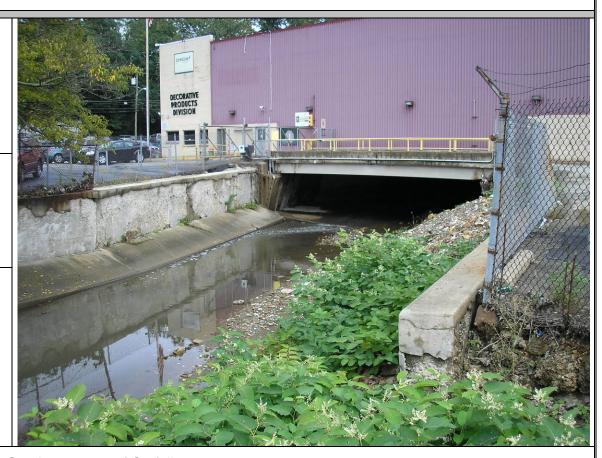
PHOTOGRAPH

28

VIEW **East**

PHOTOGRAPHS BY

Baker



Comments: Brush Creek upstream of Outfall 001.

MICHAEL BAKER JR., INC. - PHOTOGRAPHIC RECORD

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

29

VIEW **Inside**

PHOTOGRAPHS BY

Baker



Comments: Flammables within Building 30.

PHOTOGRAPH

30

VIEW Inside

PHOTOGRAPHS BY

Baker



Comments: Secondary spill collection sump in basement with oil skimmer.

MICHAEL BAKER JR., INC. - PHOTOGRAPHIC RECORD

SITE NAME: OMNOVA Solutions, Inc.

PHOTOGRAPH

31

VIEW Inside

PHOTOGRAPHS BY

Omnova



Comments: Spill collection sump in basement with transfer pump and piping to wastewater treatment plant.

APPENDIX B

Figures



SOURCE: GOOGLE.com

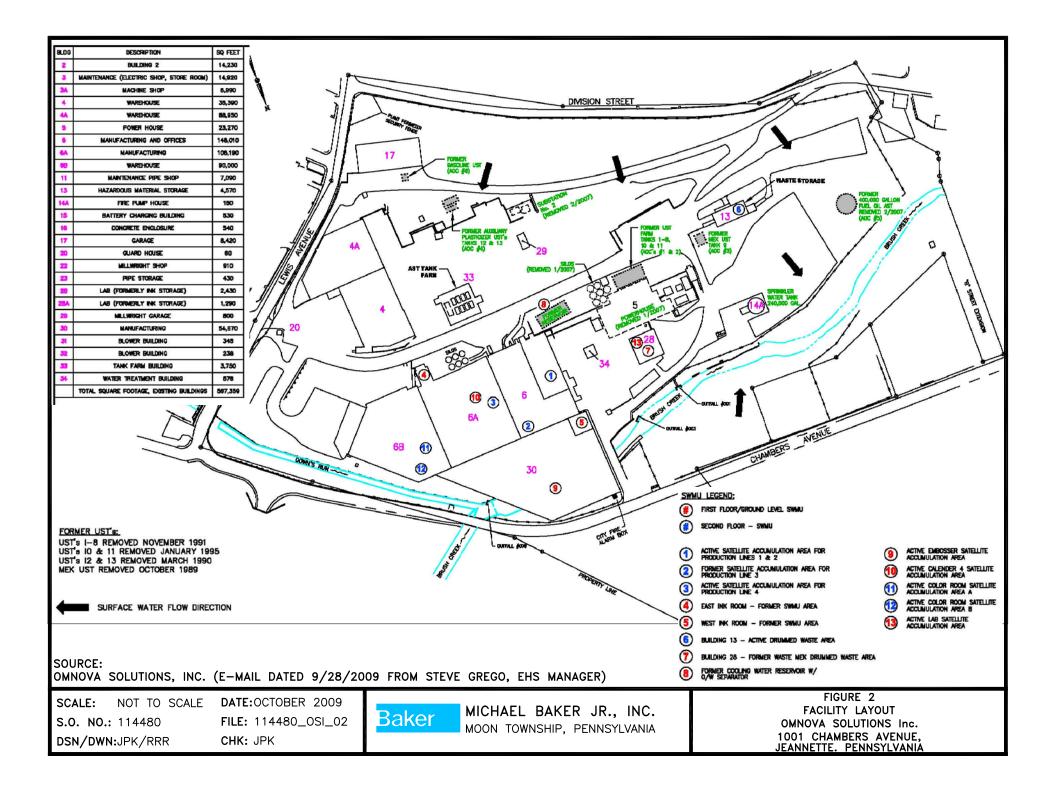
SCALE: Approx.1"=500' **DATE:**OCTOBER 2009 **S.O. NO.:** 114480 **FILE:** 114480_OSI_01

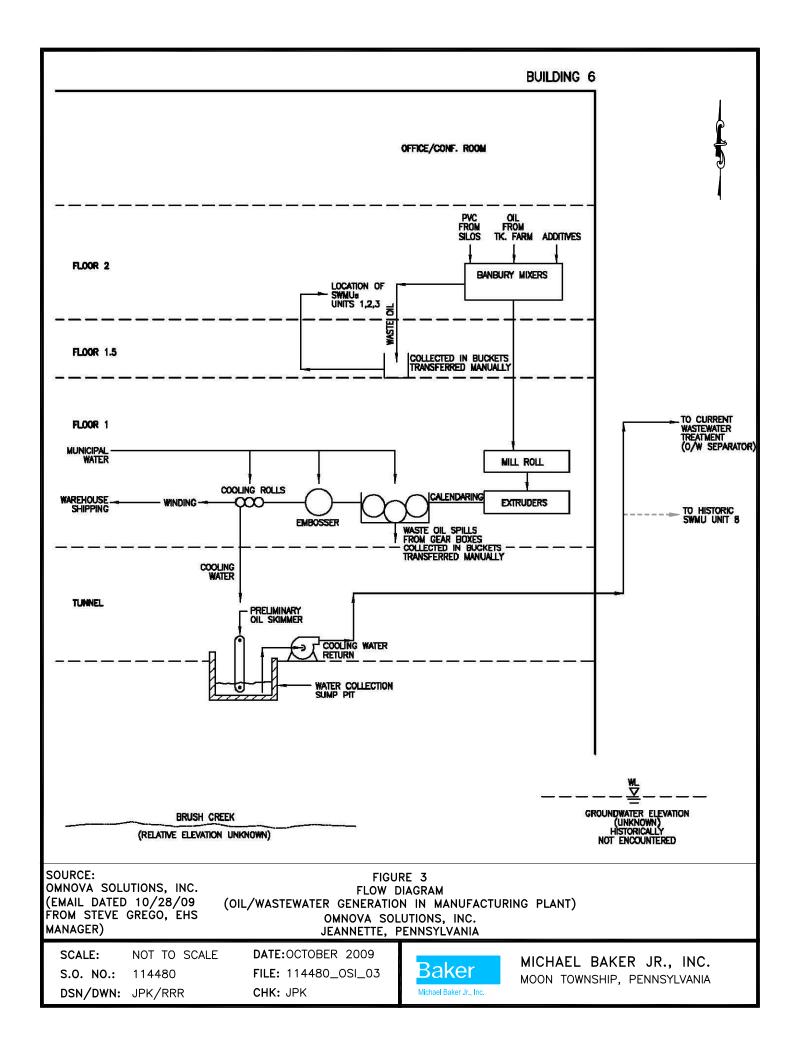
DSN/DWN:JPK/RRR CHK: JPK

Baker

MICHAEL BAKER JR., INC. MOON TOWNSHIP, PENNSYLVANIA

FIGURE 1
FACILITY LOCATION MAP
OMNOVA SOLUTIONS Inc.
1001 CHAMBERS AVENUE,
JEANNETTE. PENNSYLVANIA





APPENDIX C

Inventory of Documentation and Reference Documents

The following is a list of documents in the order referenced in the report.

Dogument Date	Decument
Document Date	Document
Hamandana Wasta	
Hazardous Waste	Calid Waste Common dance
1972	Solid Waste Correspondence
November 13, 1980	Notification of Hazardous Waste
1980-1994	Hazardous Waste Notifications
July 23, 1981	Interim Status
October 8, 1981	Change of status to generator only
1981-2006	Hazardous Waste Inspections and NOVs
April 5, 1982	PVC Resin Bag Disposal letter
November 10, 1982	PPC Plan Comments
December 10, 1982	PCB letters
December 14, 1982	PCB testing
January 17, 1983	PCB treatability study
June 23, 1984	GenCorp New Name - Modification
April 24, 1986	SWMU Request
May 15, 1986	3HW33 – SWMU Response
November 30, 1988	Name change letter
December 16, 1988	Name change letter
January 9, 1989	Name change letter
March 28, 1989	Contaminated Stone Chips and Gravel
May 19, 1994	Spill Incident report
September 21, 1999	Permit Modification/Transfer Request
May 5, 2006	25R Source Reduction steps
April 25, 2008	Form 25 R - Five streams listed for 2008
NPDES	
1965-1982	Water Quality correspondence
July 1, 1983	NPDES Permit issued
November 16, 1988	Water Quality Brush Creek
May 11, 1989	Transfer of Application - General Corp owns Diversitech
September 22, 1989	New unpermitted outfall and chlorine conc
	Application for Permit to Discharge Stormwater Assoc with
September 29, 1992	Industrial Activity
September 30, 1992	Stormwater Discharge letter
1993-2006	Compliance Inspections
January 4, 1993	NPDES Permit Application
1996-1999	Water Quality
September 13, 1996	Fact Sheet/Statement of Basis
June 30, 1997	NPDES Permit Application

September 1, 1999	Permit Modification - Transfer to Omnova
November 18, 1999	NPDES and Part II permits transferred to Omnova
January 8, 2002	NPDES Permit Renewal
<u>Air</u>	
July 30, 1992	Consent Decree
1997 - 2008	Inspection Reports
September 21, 1999	Permit Modification/Transfer Request - Spinoff, forming OMNOVA
February 2, 2000	Final Title V Permit
April 17, 2001	Addition of VTM and dental film packaging
	General Permit Application GP-65-00207 -
May 31, 2002	Permit for 2 replacement boilers and attached apps
May 31, 2002	MACT Part I Notification
July 30, 2004	Title V Permit Application
2005-2010	Title V Operating Permit: 2005 to 2010
2006-2008	Annual Compliance Certification
February 27, 2007	Permit Inactivation Memo
November 15, 2007	NOV
December 27, 2007	De Minimis Emissions Increases
<u>Tanks</u>	
June 22, 1989	Ongoing UST removal, provides inventory
August 23, 1989	UST Notification - 12 USTs
September 13, 1989	Plans to Terminate UST usage
November 15, 1989	UST registration- 12 USTs
December 14, 1989	Tanks 12 and 13 Removal - letter
April 16, 1990	USTs 12 and 13 removed, PADEP guidance on UST remediation
September 16, 1991	Notification of Closure - 8 USTs
September 17, 1991	AST Registration – 9 ASTs
January -	
September 1992	UST Farm Closure correspondence/analytical results
January 24, 1995	Fuel Oil USTs Removed/Registration